

JUNE 2021

# ROADWAY CHARACTERISTICS INVENTORY HANDBOOK







# **Roadway Characteristics Inventory (RCI) Handbook**

is produced by

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Florida Department of Transportation

**June 2021**

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# CHAPTER 1

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## EXECUTIVE SUMMARY





# CHAPTER 1. EXECUTIVE SUMMARY

The Florida Department of Transportation's (FDOT) Roadway Characteristics Inventory (RCI) Handbook has been developed as a guide for personnel responsible for performing business functions that maintain the strategic development and planning of transportation data for the Department and the system of record commonly referred to as RCI. This resource describes how the RCI supports the business data requirements and users of the system, documents the processes for establishing and managing the location of roadway assets and multimodal travel ways, describes how to collect data and the related features and characteristics of those roadway assets and multimodal travel ways, lists the data governance of RCI features and characteristics data collection, and provides the data quality management processes that maintain the integrity of the data management system. The Transportation Data and Analytics (TDA) Office is responsible for the maintenance of this handbook and coordinates changes with other offices. This handbook is used by the FDOT personnel in the District and Central Offices who perform data collection in the field and in the office.

The transportation data collected and stored in the RCI system is integrated into FDOT enterprise systems, which are used for state accountability purposes, transportation funding, project programming and prioritization, strategic planning, network analysis, data analysis, performance and condition reports, and state and federal reporting with the intent to ensure the FDOT provides reliable, organized, accurate, and timely data for data distribution to internal and external users.

**Keywords:** *FDOT, RCI, Highway Performance Monitoring System (HPMS), Roadways, Functional Classification, Straight Line Diagram (SLD), Quality Management, Transportation Technology, Multimodal, Designations, Linear Referencing System (LRS), Civil Integrated Management (CIM), Building Information Management (BIM), Reliable Organized Accurate Data Sharing (ROADS)*





# CHAPTER 2

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## INTRODUCTION TO RCI





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## CHAPTER 2. INTRODUCTION TO RCI

# 2

The Roadway Characteristics Inventory (RCI) is the Florida Department of Transportation's (FDOT) enterprise system of record for multimodal transportation systems that include the following modes: roadway, bicycle, pedestrian, rail, and trail assets. The RCI is the FDOT's single source of truth of location and extent of roadway and travel way data and information that represents actual field conditions of existing infrastructure.

The purpose of the RCI Handbook is to provide an overview of the RCI system and detailed guidance on the features and characteristics that make up the database, program applications, field inventory procedures, data entry, and report processes.

## 2.1 Introduction to RCI

The Roadway Characteristics Inventory (RCI) is the Florida Department of Transportation's (FDOT) enterprise system of record for multimodal transportation systems that include the following modes: roadway, bicycle, pedestrian, rail, and trail assets. The RCI system allows FDOT to store data and information in a relational database environment for programming, analysis, estimates, and reporting systems. The RCI system is considered the single source of truth with respect to data for Central Office, District Offices and Florida Turnpike Enterprise. This data is used to provide information for state and federal reporting business requirements. The data is multi-sourced information on location, length, extent, administrative information, system performance, and condition of multimodal transportation systems. The data is derived from field data collection, official signed paperwork, as-built construction plans, transportation studies, GIS, and other sources. This data is maintained through routine data collection cycles and is reviewed using quality assurance and quality control processes to ensure FDOT provides highly confident data that is reliable, accurate, timely, and organized for data sharing.

### 2.1.1 History of RCI

The RCI system was originally developed in the 1970s to support the federal reporting requirements of the federal Highway Administration's (FHWA) Highway Performance Monitoring System (HPMS) which requires states to submit data that support the national reports to Congress. The legacy system architecture maintained by the Office of Information Technology (OIT) and the FDOT business offices is maintained by the web application and system upgrades over the course of a few decades and continues to be a core business system to feed other FDOT enterprise systems.

## 2.2 Organization of the RCI Handbook

The purpose of the RCI Handbook is to provide an overview of the RCI system and detailed guidance on the features and characteristics that make up the database, program applications, field inventory procedures, data entry and reporting processes.

The RCI Handbook also provides instructions and references for data entry and usage for areas of the FDOT's RCI system for which the Transportation Data and Analytics (TDA) Office is currently responsible. This edition of the handbook reflects the current RCI program application, other applications associated with RCI, and updates to previous versions of this handbook. Chapter 7 of the handbook covers all the features and characteristics in the RCI database, terminology, and code values. Users of the handbook are strongly encouraged to review the log of changes for this chapter to identify the significant updates made to each feature and characteristic.

### 2.2.1 RCI Handbook Chapters

The RCI Handbook is organized in the following chapters:

- *Chapter 1: Executive Summary* provides a summary of the handbook.
- *Chapter 2: Introduction to the RCI* provides a brief introduction to the RCI system at FDOT. This chapter covers the purpose and organization of the handbook, data governance that provides the authority for RCI, RCI system components, as well as the roadways and travel ways to be included in the RCI system.
- *Chapter 3: RCI Fundamentals* explains the basic terms used in the RCI database. This basic information will assist the reader in understanding the structure and terms found in the handbook.



- *Chapter 4: Data Collection Process* describes the general methods used to conduct an inventory for various roadway inventory types. This chapter first describes the general process used to collect data for RCI (pre-inventory, field inventory and post-inventory) and then provides detailed data collection steps for each inventory type for statewide consistency.
- *Chapter 5: RCI Procedures* focuses on the life cycle of a roadway ID and the many aspects of data collection procedures. The intent is to give guidance to the Districts to assist in unique data collection situations that may be encountered during field inventory or data input. The content of the chapter is streamlined by grouping the unique data collection situations into three categories—adding a new road, editing a road, and retiring a road.
- *Chapter 6: Linear Referencing System* provides an overview of FDOT’s GIS Linear Referencing System (LRS) and the TDA Office’s GIS applications which support RCI.
- *Chapter 7: RCI Features and Characteristics* documents all the related features and characteristic data events that are collected in relation to roadways and travel ways.
- *Chapter 8: RCI and DART Reports* documents the RCI data products that are distributed and reported to internal and external transportation data business users.
- *Chapter 9: DART Application/Edits* provides a list of validation edits that are required to maintain data integrity and consistency for reporting purposes.
- *Appendices* provide additional relevant and detailed information to the users.

## 2.3 Data Governance

### 2.3.1 Authority

Florida Statute [§ 20.23 \(3\)\(a\)](#) directs the FDOT Central Office to develop policies, rules, procedures, and standards and to monitor the implementation of such policies, rules, procedures, and standards in order to ensure uniform compliance and quality performance by the districts and central office units that implement transportation programs. The RCI Handbook supports documentation of the data collection, management, and reporting processes which ensure the accountability and transparency business requirements are met by the Central Office, District Offices, and Florida Turnpike Enterprise. The RCI is the FDOT’s single source of truth of location and extent of roadway and travel way data and information that represents actual field conditions of existing infrastructure.

#### Supporting Florida Statutes

- [§ 334.048\(3\)](#) Legislative intent with respect to department management accountability and monitoring systems
- [§ 334.24](#) Compilation, maintenance, and provision of information relating to roads and road building and repair
- [§ 335.0415](#) Public road jurisdiction and transfer process
- [§ 335.01](#) Designation and systemization of public roads



- [§ 335.02](#) Authority to designate transportation facilities and rights-of-way and establish lanes; procedure for redesignation and relocation; application of local regulations
- [§ 335.065](#) Bicycle and pedestrian ways along state roads and transportation facilities
- [§ 335.08](#) Numbering public roads
- [§ 335.093](#) Scenic highway designation

### Federal Regulations

- United States Code: Title 23 Highways
- 23 CFR 1.5—Information furnished by state highway departments
- 23 CFR 1.7—Urban area boundaries
- 23 CFR § Part 460 [§ 460.1—§ 460.3]—Public Road Mileage for Apportionment of Highway Safety Funds
- 23 CFR § Part 470—Highway Systems
- 23 CFR § Part 490—National Performance Management Measures
- 23 CFR § Part 490—Asset Management Plans
- 23 CFR § Part 500—Management and Monitoring Systems
- 23 CFR § Part 667—Periodic Evaluation of Facilities Repeatedly Requiring Repair and Reconstruction Due to Emergency Events

### FDOT Procedures and Other References

The following procedures, policies, handbooks, manuals, and other documentation are listed here as a reference for users to understand how the RCI system and program are coordinated with other Department procedures and processes. FDOT utilizes several procedures and policies to establish RCI data governance to ensure coordination of stakeholders, data stewards or data custodians. Central Office, District offices, and the Florida Turnpike Enterprise share responsibilities of data collection, maintenance, management, reporting, and quality assurance and quality control. This information notes business procedures that reference data workflows around RCI to store and manage information for that business process.

- General Interest Roadway Data (GIRD) Procedure, Topic No. 52-020-310.
- Transportation System Jurisdiction and Numbering Procedure, Topic No. 25-020-010.
- Urban Boundary and Functional Classification of Roadways, Topic No. 525-020-311.
- Project Traffic Forecasting, Topic No. 525-030-120.
- Traffic Monitoring, Topic No. 525-030-150.
- Quality Assurance Reporting, Topic No. 260-030-005.

- Data Governance, Topic No. 001-325-064.
- Roadway Characteristics Inventory Traffic Operations Data, Topic No. 750-000-001.
- Transportation Data Collection, Storage and Reporting, Topic No. 850-000-001.
- Complete Streets, Topic No. 000-625-017.
- Assignment of Access Management Classifications to the State Highway System, Topic No. 525-030-155.
- Handbooks and Manuals:
  - Transportation System Jurisdiction and Numbering Handbook.
  - Urban Boundary and Functional Classification of Roadways Handbook.
  - Traffic Monitoring Handbook.
  - Routine Maintenance Cost Handbook.
  - Maintenance Rating Program Handbook.
  - Florida Design Manual.
  - Manual of Uniform Minimum Standards for Design, Construction and Maintenance (Florida Greenbook).
  - Plan Preparation Manual.
  - FDOT Context Classification Document.
  - FHWA HPMS Field Manual.
  - FHWA Traffic Monitoring Guide.
  - FHWA Highway Functional Classification Concepts, Criteria and Procedures.

### 2.3.2 *Quality Management*

FDOT treats its transportation data as an asset and requires data to be reliable, organized, timely, and accurate for data sharing with public users and local, state, and federal partners. The TDA Office has developed data quality management processes and methods to sustain a high confidence of quality in the data that is reported to users through the established policies, rules, procedures, and standards. As part of the Quality Assurance Reporting procedure Topic No. 260-030-005, the TDA Office and other Central Office units will perform monitoring activities to ensure the data collection processes and field validation methods are adhered to by Central Office, Districts, and the Florida Turnpike Enterprise.

Additionally, FDOT is responsible for reporting accurate and timely data to the FHWA through the HPMS. Under 23 CFR § Part 420, regulations outline responsibilities to provide FHWA adequate information for administering the federal-aid highway program. Per the HPMS Field Manual, the maintenance of a valid HPMS database is an

item of national significance and items of national significance must be adequately addressed in each state's annual work program. This extends beyond the simple reporting of data each year and includes taking actions to assure that all data are complete, current, and accurate. FDOT performs quality management to ensure the Department does not submit false transportation data which would be a violation under United States Code, Title 18, Section 1020. FHWA Florida Division is a partner to monitor the quality management processes and is required to annually review roadway sections, HPMS samples, and any transportation data which is collected and reported by the state.

### ***2.3.3 Responsible FDOT Offices***

The RCI system is managed by several FDOT offices that are responsible for sponsorship of their data housed in the RCI system, coordinating data needs with their staff and the District offices to ensure that RCI data is managed, business processes are coordinated, and staff and resources are trained adequately. The TDA Office is responsible for maintaining the handbook and procedures that cover most of the business processes to maintain the data governance and quality for state and federal mileage reports. TDA Office and the Office of Maintenance take the lead in performing RCI system application improvements and coordinating with the OIT to batch load data into the RCI.

The offices responsible for maintaining RCI data are:

- Transportation Data and Analytics Office.
- Office of Maintenance.
- Traffic Engineering and Operations Office.
- Systems Implementation Office.
- Freight and Multimodal Operations Office.
- District Planning, Maintenance, and Operations Offices.

### ***2.3.4 Business Users and Use Cases***

RCI data is utilized by users internal and external to FDOT that require data and information on the location, extent of roadways and travel ways that are maintained and funded by FDOT, or of Department interest. FDOT devotes resources into tracking and providing location, extent of roadways and travel ways and related information, thus supporting the transportation business needs of the Department. The TDA Office is responsible for developing visual diagrams, maps, GIS analysis, web application tools, and business intelligence tools to disseminate the RCI data to users.

Historically, FDOT developed RCI to collect roadway inventory condition and performance for the FHWA HPMS data submittal. Since then, new use cases have been identified to support the planning of a safe, efficient, reliable multimodal transportation system. The following list of comprehensive RCI data use cases have been identified over the years as the transportation data needs for planning and engineering have grown beyond the original intent:

- Transportation Programming and Funding:
  - Federal Aid Reimbursement and Emergency Management Relief Efforts.

- Transportation System Designations:
  - Urban Boundary and Functional Classifications.
  - Roadway Ownership.
  - Roadway Designations.
- Asset Management:
  - Road Inventory.
  - Maintenance Budget Estimates.
- Project Development and Environment (PD&E).
- Design Quantity and Estimates (DQE).
- Long Range Estimates.
- Highway Performance Monitoring System:
  - Condition and Performance Reports to Congress.
  - Centerline Mileage Reporting.
  - Roadway Inventory Condition and Performance Data Reporting.
  - Traffic Monitoring.
  - Travel Time Analysis.
  - Pavement Condition Analysis.
- Multimodal Data Analysis:
  - Freight Analysis Framework.
  - Freight, Logistics, and Passenger Studies and Projects.
  - Freight Data Analysis.
  - Railroad Crossing Analysis.
  - Bicycle and Pedestrian Analysis.
  - SUN Trail Analysis.
- Safety Improvement Analysis:
  - Crash and Incident Mapping and Reporting.

- Transportation Performance Management:
  - Florida Transportation Commission’s Transportation Authority Monitoring and Oversight report.
  - FDOT Performance Reports.
  - FDOT Source Book.
- Travel Demand Modeling.
- Straight Line Diagrams.
- FDOT Data Requests:
  - Historical Data Requests.
- GIS Systems:
  - Open Data Hub.
  - ArcGIS Online.
  - Linear Referencing Systems.
  - All Roads Network of Linear Referenced Data (ARNOLD).
  - GIS Shapefiles.

### ***2.3.5 Transportation Funding***

The RCI system supports the FDOT Work Program and Budget Office applications and the Five-Year Work programming by relating travel way or roadway IDs and the associated state or federal designations and classifications such as the National Highway System or Functional Classification Systems with financial project numbers. This process assists the FDOT by determining the prioritization of eligibility of transportation funding through the State Transportation Trust Fund (STTF) or federal-aid programs. The FHWA and U.S. Department of Transportation (U.S. DOT) require states to collect and report HPMS data to address various national transportation funding and planning needs.

These federal requirements are served through the inventory of RCI and HPMS data which is integrated with the annual submission of data to the HPMS system and reimbursement of funds from the Financial Management Information System (FMIS).

The HPMS data is also used by the FHWA to support the following federal programs:

- Support the apportionment of Federal-aid Highway Program funds.
- Identification of roadways eligible for federal aid.
- Estimates of highway investment requirements.

- Support for the FHWA's strategic planning efforts.
- Development of a National Highway System (NHS).
- Monitoring of the National Highway Performance Program.
- Transportation Performance Management (TPM).
- Transportation Asset Management Plan (TAMP).
- Transportation/air quality planning.

## 2.4 RCI System Components

The RCI System has several components maintained by the OIT, TDA Office, and Office of Maintenance to support the data collection, data management, and data distribution of RCI data. The RCI database resides on a mainframe computer system located in the state data center and is maintained by Department personnel. There are two main applications for accessing RCI data—the basic web-based RCI application and the Time Sharing Option (TSO) application. Security clearance or resource access control facility (RACF) gives users specific privileges in either or both areas and is assigned by security coordinators throughout the Department. The ability to add, update, or delete RCI data is assigned by area of responsibility (e.g., Planning, Traffic Operations, Office of Maintenance, etc.) and respective Districts.

### 2.4.1 RCI Web Application

The RCI web application, developed in 2004, provides access, data entry, and administration of the traditional RCI database. A separate RCI Application User Manual provides details on the use of the web-based RCI application, which is available at: <https://www.fdot.gov/statistics/tsopubs.shtm>.

### 2.4.2 RCI Database

RCI data is stored on the mainframe in a DB2 instance and integrates RCI data to other enterprise mainframe systems. Data is entered through the RCI web application in a live manner and the mainframe is refreshed/updated nightly through RCI extract tables are identified as RCI Table 01 and Table 02 extracts (also known as Superfiles) for other mainframe systems. The TDA Office performs copies of these extracts into its Oracle environment for other non-mainframe systems such as the GIS Enterprise which is reconciled and updated weekly. Other TDA Office systems that utilize the Oracle snapshots are:

- HPMS processing database.
- Roadway Inventory Tracking Application (RITA).
- Data Analysis and Reporting of Transportation (DART).
- Real Time Mileage (RTM) reporting application.
- GIS shapefile data factory.

### 2.4.3 RCI System Data

District and Central Offices are responsible for entering data into RCI from a variety of data sources and methods that provide and determine location, extent, performance, and condition. Roadways and travel ways are segmented in manageable sections post-construction. Construction plans, county or city boundaries, intersections, estimated right-of-way, and reference points from the field are utilized by the Districts to determine the start and end locations of sections by using one or more of the following methods:

- Distance Measuring Instruments (DMI).
- Global Positioning System (GPS) equipment.
- Terrestrial street-level imagery.
- Construction as-built plans.
- Official designation paperwork.
- Cartographical maps.
- Geographical Information Systems (GIS).
- Aerial imagery.

## 2.5 RCI Roadways and Travel Ways

One of the critical RCI functions is to manage roadway and travel way location segment records by unique IDs, also known as the roadway ID. A very important use of roadway ID involves providing the ID with joined features, characteristics, and financial information for system level summary reports for Work Program or performance reporting required by Florida's legislature. An equally important use of the roadway ID is to provide the related information to federal reporting processes required in federal law and monitored by the FHWA to perform state apportionment of transportation funds. This critical function of RCI allows the Department to meet its business data obligation amongst others which have grown since RCI's conception.

The roadways and travel ways assigned to a roadway ID in RCI include roads mainly related to the ownership, right-of-way, maintenance, preservation, mobility, and accessibility of the SHS (F.S. § 335.01) as well as county roads and city streets of interest to FDOT. These roads are commonly referred to as On-System roadways. Roadways and travel ways that are not owned or maintained by the Department are also included in the RCI system and referred to conversely as Off-System roadways. In either situation, these road statuses and their planned or existing locations are added and managed in RCI to track the changes and updates to provide the most up to date information for the business users. The locations are joined with the financial project management databases to track the construction project funding phases for the SHS. This helps to document FDOT's mission to support the responsibility of maintaining a safe, multimodal transportation system that ensures the mobility of people and goods. The locations of roadways or travel ways that are to be included or inventoried in RCI and represented in the LRS are:

- Roadways or travel ways that receive state or federal funding for construction projects through FDOT's Office of Work Program and Budget Financial Management (FM) Systems.



- Roads owned by the state or once owned by the state.
- On or proposed for the NHS.
- On or proposed for the National Highway Freight Network (NHFN).
- On or proposed for the Strategic Intermodal System (SIS) or SIS connector.
- Roadways functionally classified higher than local classification.
- Roadways that receive funding through Local Agency Programs (LAP).
- Roadways that receive funding for safety improvements.
- Roadways that are on, below, or around bridges.
- Frontage and service roads.
- Wayside parks.
- Rest areas.
- Weigh stations.
- Park and rides.
- Bicycle paths.
- Sidewalks and shared used paths.
- Trails.
- Shared used non-motorized trails.
- Railways.
- Multimodal intersections or railroad crossings.

The location of roadways eligible for federal-aid assistance programs is also critical to FDOT's mission. FDOT attributes roadways in the RCI with FHWA's Highway Functional Classification System designation code formats as part of the HPMS schema. The HPMS data is then submitted by FDOT to FHWA which is utilized to support the apportionment and eligibility of use of federal funds and to perform system extent, condition, and performance monitoring for reports to Congress to address infrastructure decision-making.

RCI roadways are also inventoried to track the historical life cycle information of roadways and travel ways that are owned by the state which may be transitioned by mutual agreement from the state to local ownership (by the city or county or vice versa). As roadway ownership changes are updated in RCI, other situations or events that involve improvements, realignments, reconstruction, closure, or removal are recorded in the RCI system by identifying the road inventory status.

Roadway and travel way section locations stored in RCI also contain the location of assets either on or off-set to the inventory direction as well as the features and characteristics of assets on that segment. These features and characteristics represent the roadway or travel way inventory, condition, and performance for state and federal reporting requirements.

A typical list of features or characteristics stored with the roadway section include the elements in the table below.

**TABLE 2.1 | ROADWAY SECTION DESCRIPTION**

Roadway Section Element	Explanation	Example
State Road System	State Road Number	SR-20
Roadway ID	Unique Identifier	60030000
BMP	Beginning Milepoint	21.659
EMP	Ending Milepoint	22.034
Functional Classification	FHWA Functional Classification Code	04
Lanes	Number of Lanes	2
TypeRoad	Type of Road	2
Status	Section Status Exemption	02
Federal System	Federal System Code	5
AADT	Annual Average Daily Traffic	7700

# CHAPTER 3

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## R C I F U N D A M E N T A L S





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## CHAPTER 3. RCI FUNDAMENTALS

# 3

This chapter explains the basic terms used in the Roadway Characteristics Inventory (RCI) database. This basic information will assist the reader in understanding the structure and terms found herein.

Florida's roadways are represented by multiple data segments in RCI. Each segment has data elements that describe the roadway in physical terms. RCI identifies segments of a road with a unique roadway ID where groups of data elements are described by features and characteristics. Most data is stored at the characteristic level.

Florida Department of Transportation (FDOT) conducts inventories of the roadway data elements based on the type of road, its owner, how it functions, and its physical characteristics. There are six distinct inventory processes for different types of roads: Active On the State Highway System (SHS), Active Off the SHS, Active Exclusive On/Off the SHS, Local Roads with FM Projects and Highway Performance Monitoring System (HPMS).

## 3.1 RCI Mode Types

RCI database includes data for the following three modes of travel:

1. Roadway—concrete, asphalt or unpaved roadway
2. Rail Line—crossings, stations, class type, company name
3. Non-motorized Way—trails

## 3.2 Ownership Offices

Data in RCI is collected and maintained by various offices at FDOT. These offices include:

- Transportation Data and Analytics (TDA) Office.
- Office of Maintenance.
- Traffic Engineering and Operations Office.
- Systems Implementation Office.
- Freight and Multimodal Operations Office.
- District Planning, Maintenance, and Operations Offices.

## 3.3 Roadway ID

The roadway ID number is a unique identifier in RCI. The roadway ID is an eight-digit number assigned to any roadway for which the Department collects and reports roadway information. A roadway ID number comprises three different groups of numbers: county, section, and sub-section.

The county numbers occupy digits 1–2. These are the standard county numbers used by the Department (see Appendix J for listing). The section numbers occupy digits 3–5, and the sub-section numbers occupy digits 6–8. An example roadway ID is 99 010 000 where 99 is the county number, 010 is the section number, and 000 is the sub-section number.

Features and characteristics may run for the entire length or for a specific portion of the roadway ID. The Department uses roadway ID numbers when collecting and reporting roadway information. These numbers can be assigned to state, county, or city roadways (the three jurisdictional bodies in the state of Florida).

### 3.3.1 Roadway ID Numbering System

Roadway IDs are the basis for the RCI system. A roadway ID consists of an 8-digit number, identifying the county or jurisdiction, the type of system, and the type of road. The numbering of the county, section, and sub-sections of the roadway ID is the responsibility of District personnel in coordination with TDA Office staff.

The roadway ID numbering system is detailed below. An RCI/LRS package must be submitted through MyFloridaLRS to assign or change the roadway ID numbers.

## County Number

The first two digits of the roadway ID represent the county or the county jurisdiction where the road is physically located.

## Section Number

The next three digits of the roadway ID are the section number, which are assigned in sequential order starting with 001, except for Active Off the SHS roads that are assigned 000. Sections numbers 500 and above are reserved for the old secondary system. Section numbers are assigned using the following scheme:

- 000—Active Off the SHS roads only
- 001-469—Active On the SHS roads
- 470-479—Turnpike facilities
- 480-499—Active On the SHS roads
- 500-699—Old secondary system formerly (may be reused)
- 700-899—Reserved for future use
- 900-969—Local roads with Financial Management (FM) projects (except 929 and 931)
- 929—SIS Rail Line
- 931—SUN Trail non-motorized way
- 970-979—Local roads with FM projects (Turnpike)
- 980-998—Work Program Transportation System 16
- 999—Test number

## Sub-section Number

The last three digits of the roadway ID are the sub-section number and should be assigned using the following scheme:

- 000—Original mainline alignment (all digits are zero)
- 001, 002 through 009—Realignments (first two digits are zero)
- 101, 102 through 109—One-way pairs (middle digit is zero)
- 111 through 799—Ramps (no digits are zeroes, some numbers will not be used, i.e., 120, 130, 140, etc.)
- 100 series through 700—Frontage roads (last two digits are zero)
  - 800 through 899—GIS routes only (800 series)
  - 900 through 909—Managed Lane
  - 910 through 998—Maintenance yards, tollbooths, service plazas, and other non-roads, e.g., roads to fishing piers, open road tolling (ORT) lanes, etc.
- 970 through 979—Turnpike local road w/FM projects
- 999—Test number (except Turnpike)

## Roadway ID Examples

**TABLE 3.1 | ROADWAY ID EXAMPLES**

Roadway ID <sup>1</sup>	Road Type	Numbering System Description
99 000 000	Countywide Roads <sup>2</sup>	All section & sub-section digits are zero
99 000 001	Active Off the SHS	All section digits are zero
99 000 010	Active Off the SHS	All section digits are zero
99 000 100	Active Off the SHS	All section digits are zero
99 001 000	Active On the SHS	All section digits are not zero
99 010 000	Active On the SHS	All section digits are not zero
99 100 000	Active On the SHS	All section digits are not zero
99 001 001	Realignment	First two sub-section digits are zero
99 001 101	One-way Pair	Middle sub-section digit is zero
99 001 111	Ramp	No sub-section digits are zero
99 001 100	Frontage Road	Last two sub-section digits are zero
99 001 800	GIS Route	800 series sub-section
99 001 900	Managed Lane	900 series sub-section
99 470 000	Turnpike Facility	470 series section
99 500 000	Old Secondary System	500 series section
99 600 000	Old Secondary System	600 series section
99 900 000	Local Roads w/ FM Projects	900 series section (except 929)
99 929 000	SIS Rail Line	929 section
99 970 000	Local Roads w/FM Projects (Turnpike)	970 series section

<sup>1</sup> Spacing in the roadway ID numbers is provided for reading clarity only. In use, there are no spaces.

<sup>2</sup> Use these roadway IDs for the key sheet naming convention. It is imperative that they remain coded as Pending in RCI. Do not remove them from RCI. They are necessary for the key sheet application to work properly.

### Active On the SHS Examples

Examples of typical Active On the SHS roadway IDs are 99002000 and 99040000. Roadway ID 99040000 is newer, because it is higher. When numbering Active On the SHS roads, keep this same convention; for example, if 99003000 is available and 99040000 is the last number, use 99050000 instead.

### Active Off the SHS Examples

For Active Off the SHS roads that do not have a county-city roadway ID, select a number that is not presently listed in the RCI database. This number will begin with the two-digit county number followed by three zeroes, then three additional digits that range between 001 and 999. These numbers are usually given to roads with FM projects and lower functional classification such as locals and collectors. Higher numbers are given to roads of a higher classification. Examples of typical Active Off the SHS numbers are 99000010 or 99000200. Roadway ID 99000010 is older. If 99000006 is available but if the last number is 99000200, then use 99000201. Roadway ID



99650000 is a secondary number that is on the Active Off the SHS. Do not use numbers in the third digit that are five or higher.

### Old Secondary Systems

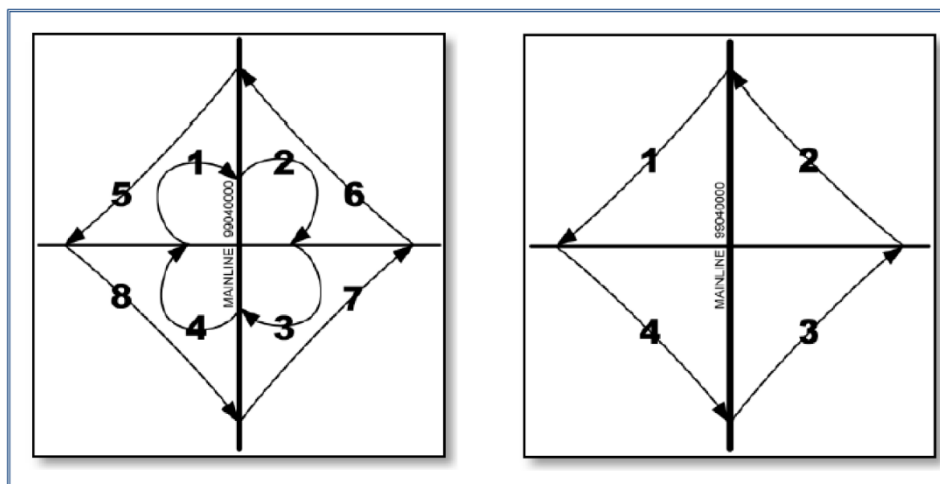
The old secondary system has been abolished. The old secondary roadway ID numbers do not have to be held and can be reused.

### Active Exclusive Examples

This roadway status is assigned to ramps and frontage roads that are associated to mainline alignments. Common numbers are 99040111, 99040112, 99040113, and 99040114. These sub-section numbers would be assigned to the mainline 99040000. If 99040000 intersected 99050000 at that interchange, all ramps would be associated with 99040000 because it has the lower number and is higher on the numbering hierarchy or assigned to the number of the construction job. There are exceptions to this rule, so assign ramps based on ownership. Use sub-section numbers 111-799 to denote ramps.

When assigning roadway IDs, consistency is key. Assign ramp numbers clockwise from the mainline inventory direction. Following this pattern results with the even numbers as ON ramps and the odd numbers as OFF ramps.

**FIGURE 3.1 | ACTIVE EXCLUSIVE NUMBERING EXAMPLES**



If an interchange is in two counties (crosses county line), then assign the ramps to the county that the bridge at the interchange is assigned to. For additional details on bridge numbers in this situation, please refer to Feature 258 in Chapter 7 of this handbook.

For pending roadway ID assignments, ensure ramp numbers are consistent with the County/District that the interchange is assigned to. Do not go back and change roadway ID assignments.

### Past Primary and Secondary Road Systems

In years past, the Department had two separate roadway systems identified as primary and secondary.

The primary system is today's Active On the SHS roads. These systems were identified through digits three to five of the roadway ID. The primary system was identified by a series of roadway ID numbers ranging from 000 to 499. The secondary system is the city and county roads that are now Active Off the SHS roads. These roads once received state funding for improvements, but in 1977 the legislature abolished the secondary system. The

secondary system roadway ID numbers ranged from 500 to 999. When Florida's Turnpike System was created, its roads were assigned roadway ID numbers in the 470 range (471, 472, etc.). The last three digits of the roadway ID number were sequential. When a secondary road was added to the SHS, it was given a new Active On the SHS roadway ID number. (The old number remained on the key sheet.)

### **County & City Systems**

When it became necessary to classify roads by function in accordance with Federal standards, roads other than state primary and secondary had to be assigned roadway IDs. These roads were locally owned and maintained, so a new county and city system-numbering scheme was developed. In this scheme, the first two digits of the roadway ID represented the particular county; the next three were all zeroes and the last three were the sequential number, ranging from 001 to 999.

County-City:

- 15 000 001 (Pinellas County, Sequence 001)
- 48 000 444 (Escambia County, Sequence 444)
- 72 000 099 (Duval County, Sequence 099)

Roadway IDs similar to these were assigned to roads that never had another ID assigned. The numbering system for these types of roads was identified with a roadway ID number review as discussed later in this section.

In another instance, when numerous sub-sections were created, the original roadway ID status was made Pending, and all data was removed and transferred into the sub-sections. The original roadway ID could not be deleted as it was linked to the Work Program Administration/Financial Management (WPA/FM) systems. The history associated with the original roadway ID was therefore misrepresented due to the sub-sectioning. This process is no longer utilized; however, RCI may have some examples lingering in the database.

## **3.3.2 Roadway ID Assignment Process**

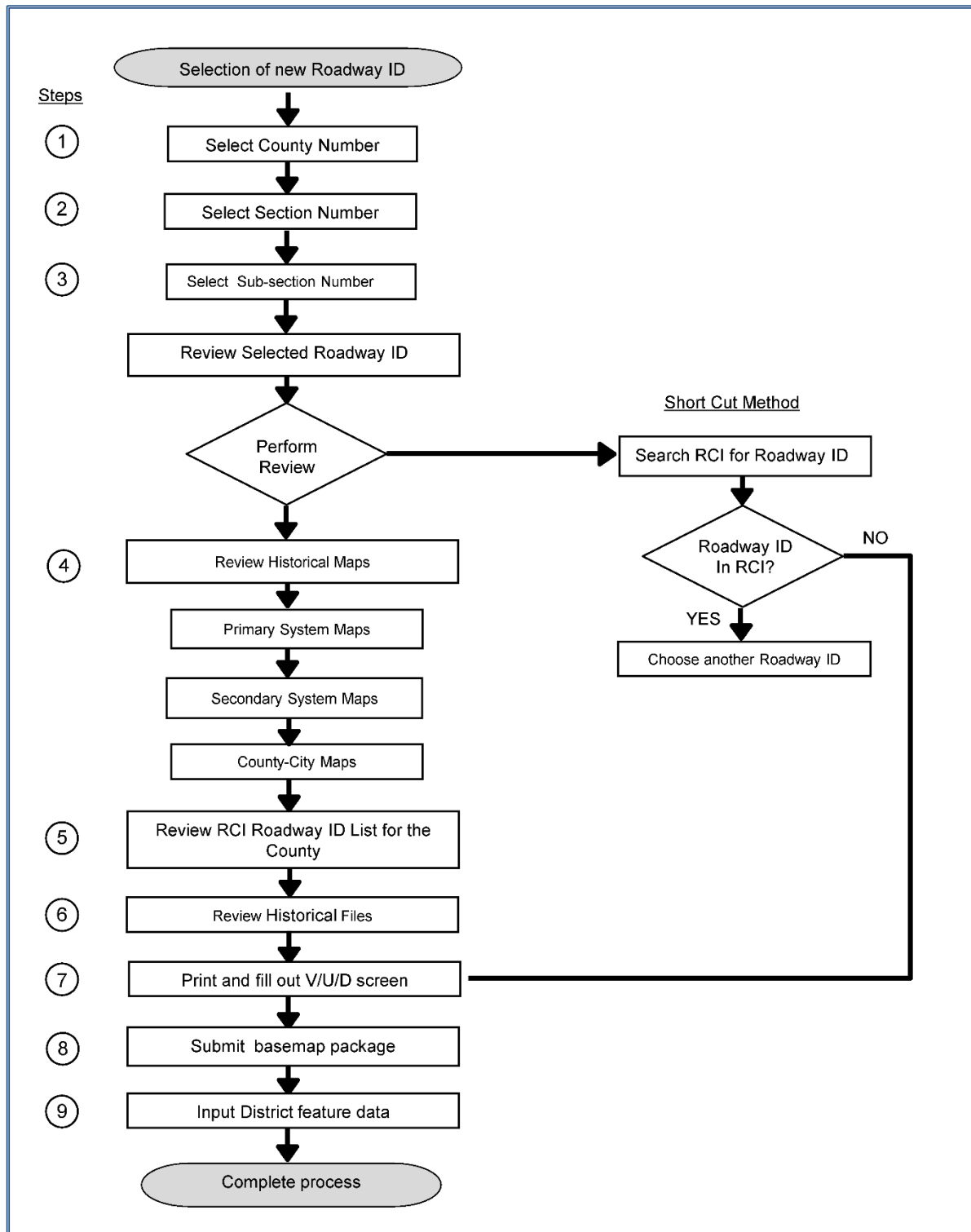
The current numbering scheme was established in 1985 and is a modification of the system used prior to 1985. The existing primary, secondary, and county-city roadway IDs should be preserved.

For roadway IDs being added, the number should not have been previously assigned. This involves performing a roadway ID review and selecting a new roadway ID that is associated within the range of roadway numbers that have similar status.

If possible, use the original construction job number under which the road was built; then assign a number under that construction job.

The assignment of a new roadway ID involves correctly selecting the number and performing a review to ensure that it is not already in use. This section covers these steps, which are also illustrated in the accompanying flow chart in Figure 3.2.

**FIGURE 3.2 | FLOW DIAGRAM FOR ROADWAY ID SELECTION AND REVIEW PROCESS**



## Roadway ID Assignment Process Steps

Steps 1-3 involve selection of the roadway ID; steps 4-6 (and the shortcut method) involve checking the selected roadway ID; and steps 7-9 are the final steps in establishing the roadway ID for further use.

### *Step 1*

County number: Select an appropriate two-digit county number, based on the county or jurisdiction in which the roadway is physically located. If the roadway lies within two counties, determine the county jurisdiction, and use the appropriate two-digit county number, e.g., county line roads.

### *Step 2*

Section number: Select the section number (digits three through five) based on the roadway status. Determine the appropriate numbering schematic according to the roadway ID numbering system.

### *Step 3*

Sub-Section number: Select the sub-section number (digits six through eight) for the next available sequential number.

At this point, continue with the detailed review method or the shortcut method. For the detailed method, follow steps 4-6. The shortcut method is presented on the flow chart and is discussed following step 9.

### *Step 4*

In the District Offices, three sets of maps identify the three different roadway systems. The primary, secondary, and county-city maps show the roadway ID assignment and location. Every District will have a copy of each set of these maps. Historical maps can also be accessed through the Electronic Document Management System (EDMS). When a roadway ID is being researched or verified, start with the primary map. If the road is shown as a solid line, use that number; if not, go back to the primary map and use the dotted primary number. If a number cannot be located on the primary or secondary maps, then go to the county-city map.

Countywide roadway IDs are used for roads that have never been on the SHS or the secondary system. The third, fourth, and fifth digits are usually zeroes.

The zero milepoint is usually denoted at the beginning of the southern/western end of the solid line depicting the roadway unless a straight-line diagram (SLD) shows differently. Where a secondary roadway ID begins as a dotted line then becomes a solid line, the roadway ID would be referenced as noted below.

Ignore changes made to the secondary system roadway ID assignments after 1977. If in doubt whether a change to the secondary system map or other map was made after 1977, look for an SLD produced before 1977. This map should have only countywide numbers, not primary (third digit less than five) or secondary (third digit five or higher) roadway IDs.

It will also be necessary to compare information from these maps with the information found in the RCI database. When a secondary road system was transferred to the state system, a new roadway ID was given to it using the standard numbering conventions as Active On the SHS. Therefore, on the primary and secondary maps, the road would be displayed with two roadway IDs. Parentheses were used to identify the roadway number that it previously occupied or referenced on the other system. It would be displayed above or below the new number. Roads should retain the original roadway ID along with the beginning and ending milepoints. Even with consistent



records, historical research can be difficult. When milepoints are moved and portions of roads deleted from the database, it becomes virtually impossible to track history. If a roadway ID is changed, the Safety Office cannot properly analyze crash histories to determine where improvements are most needed. Similarly, changes to a roadway ID would impact the workflow processes of other offices such as Work Program, Traffic Engineering and Operations Office, and Forecasting and Trends Office.

### Step 5

Review the countywide roadway ID listing by using the Roadway ID List screen. This will list every roadway ID in each county by roadway status. (See Figure 3.3)

**FIGURE 3.3 | EXAMPLE OF ROADWAY ID LIST SCREEN**

Read Only Mode

**Roadway Characteristics Inventory**

Help Login  
5/19/2021 12:06PM EST

Main Feat/Char Roadway ID Routes Reports History Other

**Roadway ID List**

County: 33 - LAFAYETTE Overall Status: ACTIVE ON THE SHS Information Selected

Previous Next

Roadway ID	Overall Description	Local Name	Route Name	City	Net Length
<a href="#">33010000</a>	E W US-27/E W MAIN ST	W US-27, W MAIN ST, E MAIN ST, E US-27		MAYO	31.029
<a href="#">33030000</a>	SR-349	S SR-349			8.724
<a href="#">33040000</a>	SR-51	SR-51, SR-51, S FLETCHER AVE, N FLETCHER AVE		MAYO	22.467

Previous Next

### Step 6

Historical Files: If the proposed roadway ID is not located on any of the above sources, then review any historical files. Districts should have and keep old historical files and SLDs by roadway ID.

### Step 7

V/U/D screen: Once the chosen roadway ID number is OK for use, print a blank V/U/D screen and fill in all the required items to create a roadway ID.

### Step 8

Submit LRS correction package: Submit a LRS correction package according to the RCI/LRS correction package process to TDA to create the roadway ID.

### Step 9

Update district data: After the package has been completed and returned, update District features according to the inventory practices. Ensure that administrative Features 111, 113, 114, 140, and 251, including BEGSECNM and ENDSECNM, are updated immediately.

## Shortcut Method

The shortcut method is an alternative to the detailed method and involves performing a search of RCI once a new roadway ID number is chosen. In most cases, if the number is not in the RCI database, it may be used. If the number is in use, choose another and perform a second search until a usable number is found. Proper judgment is required for this method—for example, if a roadway has been on the old secondary system, further research may be required.

## Special Cases

Ramps to rest areas, service plazas, weigh stations, and toll collection lanes will all be treated in the same way. Each ramp to these facilities will receive one continuous roadway ID per direction, which will be a sub-section of the mainline.

### *Roadway ID Assignments*

The roadway ID for ramps will have its section and sub-section components assigned according to the highest classification hierarchy of the mainline. Hierarchy of classifications is interstates, U.S. routes, state roads, and local roads, in that order. If two roads within the same hierarchy intersect, the lowest roadway ID will be used.

### *Roadway ID Assignment for Rest Areas*

The current practice is to assign one continuous roadway ID, one roadway ID per rest area. The same practice is used for weigh stations.

### *Roadway ID Assignment for Service Plazas*

Only one continuous roadway ID per direction should be used for the service plaza just as a rest area or weigh station. One continuous roadway ID sub-section of the mainline exiting and returning from the service plaza will be used.

### *Roadway ID Assignment for Toll Collection Lanes*

Across the state, mainline toll plazas are being replaced with high-tech plazas with Open Road Tolling (ORT)—no gates, no tollbooths, and no need to slowdown for drivers with SunPass.

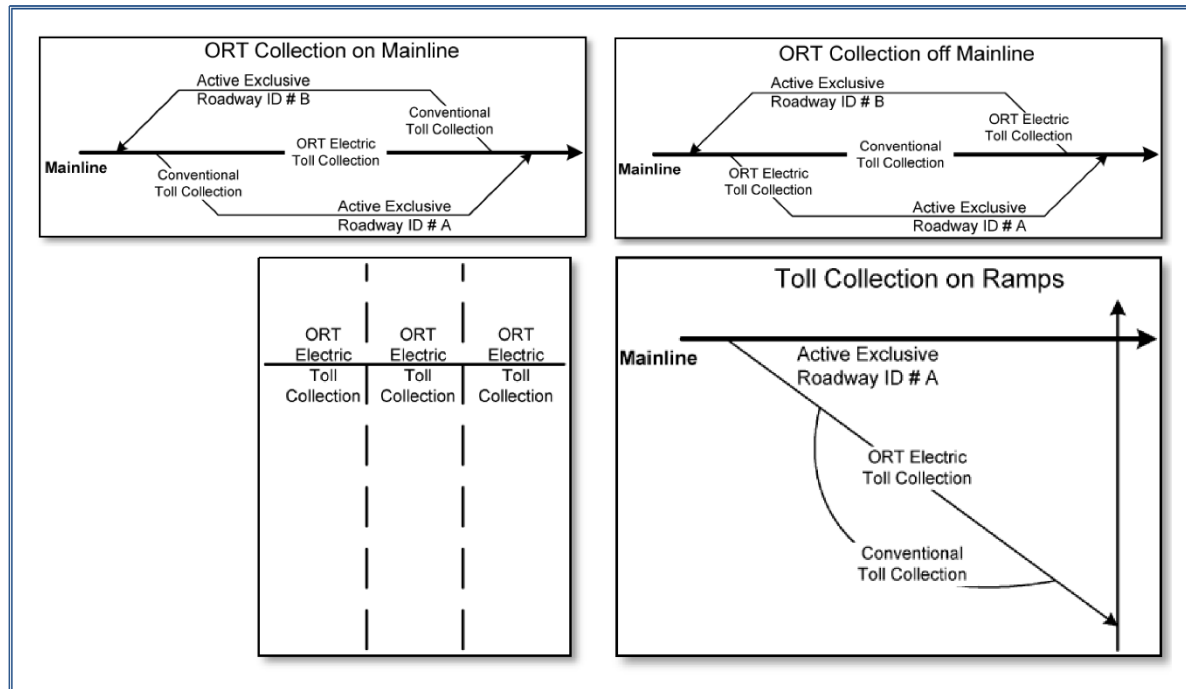
An additional roadway ID will be assigned for toll collection lanes with separated ORT electronic toll collection and conventional toll collection. The different toll collection methods must be located on separate lanes that are off the mainline.

No additional roadway IDs will be assigned where the electronic and conventional toll collection lanes are adjacent on the mainline.

- Toll collection on the mainline with combined electronic and conventional toll collection:
  - Feature 360, collect the milepoint at the midpoint of the toll collection booth.
  - Only one roadway ID will be assigned for a ramp with toll collection lanes with ORT electronic toll collection and separate lanes for conventional toll collection.
- Toll collection on the mainline:
  - Feature 360, collect the milepoint at the midpoint of the electronic toll collection readers.
- Toll Collection off the Mainline:
  - Assign one continuous Active Exclusive roadway ID for the toll collection on each side of the mainline, one for the left side and one for the right side.

Sub-section numbers 900-998 are assigned to maintenance yards, tollbooths, and other special-use roads, e.g., roads to fishing piers and open road tolling lanes.

### FIGURE 3.4 | ROADWAY ID ASSIGNMENT FOR TOLL COLLECTION LANES



### 3.3.3 View/Update/Delete Roadway ID Screen

This screen, often referred to as the V/U/D screen, displays information about roadway IDs.

Read Only Mode

Help

Login

3/5/2021 8:34AM EST

Roadway Characteristics Inventory

Main

Feat/Char

Roadway ID

Routes

Reports

History

Other

Find

Feature Data

Route List

Detail

View/Update/Delete Roadway ID

Roadway ID:

01000001

Managing District:

DISTRICT 1 - BARTOW

County:

01 - CHARLOTTE

Geographic District:

DISTRICT 1 - BARTOW

Section:

000

General Compass Direction:

EAST

Sub-Section:

001

System:

COUNTY ROADS

Beg. Mile Point:

0.000

State Highway System:

End. Mile Point:

5.400

Controlling City:

Gross Length:

5.4

RCI Section Established Date:

11/02/1979

Net Length:

0.000

(MM/DD/YYYY)

State Owned:

0%

Stationing Exceptions Exist?

NO

Overall Status:

INACTIVE

Feature/Characteristics Exist?

YES

Type:

MAINLINE

FM Projects Exist?

NO

Mode Type:

ROADWAY

Governmental Jurisdiction:

COUNTY

Overall Description:

ZEMEL ROAD

Update

Delete

Enterprise GIS

Last Updated By: PL934DC On: 10/12/2005

Beg. MP	End. MP	Feature/Characteristic	Value
0.000	5.400/114 -	LOCAL NAME OF FACILITY	ZEMEL ROAD
0.000	5.400/120 -	TYPE OF ROAD	0 - NOT DIVIDED
0.000	5.400/140 -	SECTION STATUS EXCEPTION	04 - INACTIVE

#### Roadway ID

The eight-digit roadway ID number.

#### County

The county code and county name where the roadway exists.

#### Section

Taken from the roadway ID.

#### Sub-Section

Taken from the roadway ID.

#### Beginning Mile Point (BMP)

The milepoint assigned to the beginning of a roadway ID.

#### Ending Mile Point (EMP)

The milepoint assigned to the ending of a roadway ID.

#### Gross Length

The EMP minus the BMP.

#### Net Length

The sum of roadway segments that are drivable and that have their data carried by a single roadway ID. This excludes portions that are shown in Feature 140 to be pending, inactive, deleted, or GIS route, or that have an exception coded in Feature 141.

## State Owned

The percentage of the roadway length owned by the state. This is automatically calculated by the RCI system. This percentage determines the amount of mileage owned by the state or local entity within the roadway section.

## Overall Status

Indicates the assigned functionality of the entire roadway segment as coded in Feature 140. Statuses are listed below:

- 01: Pending—New construction or road transfers anticipated to be added to the roadway network.
- 02: Active On the SHS—A road segment that is owned and maintained by the Department as part of the SHS.
- 04: Inactive—Indicates a roadway ID will no longer be considered as an operational number. An operational number is a roadway ID currently being used to store RCI data. All other RCI data currently coded under this number must be retained for an indefinite period. This road may or may not be of any interest later.
- 05: Deleted—A road segment that has been physically removed. Any data currently in RCI must remain in the database for a minimum of five years after a status change to deleted. Prior to deletion of RCI data, the Safety Office must be notified.
  - Individual portions of a roadway can have a status other than 4-Inactive or 5-Deleted despite the overall status coded that way. Once a roadway ID is given an overall status of 4-Inactive or 5-Deleted its data is effectively hidden from reporting purposes and none of the individual portions should be changed.
- 07: Active Exclusive—A road segment that is maintained by the Department; however, the mileage associated with the length is not added into the overall system mileage. This status is assigned mainly to ramps, frontage roads, or any other facility not considered as mainline. Do not code more than one status value for active exclusive roadways.
- 09: Active Off the SHS—A road segment that is not part of the SHS. An Active Off the SHS segment is maintained by another entity (county or city), but the Department collects some data for reporting purposes.
- 10 GIS Route—This road type is placed in RCI and the LRS upon the request of the TDA Spatial Data & Analytics division and is used to improve the appearance of maps. An LRS is a geographic representation of roadways maintained in RCI. It uses the 800 series of the sub-section number.
- 12: Active with Combination—A mainline roadway ID with two or more status codes (e.g., both Active On the SHS and Active Off the SHS). When it is necessary to have road segments under a single roadway ID with different status codes, the overall status must be coded as Active with Combination. Submit an RCI/LRS package to have the V/U/D screen changed.
- 16: Local Roads with FM Projects—Local roads with Financial Management (FM) projects are placed in the RCI database as requested by the District Work Program Office. They help identify projects belonging to the Small County Resurfacing Assistance Program (SCRAP), Small County Outreach Program (SCOP), or County Incentive Grant Program (CIGP) and use the 900 series of section numbers. See Section 4.3.5 “Data Collection Process for Local Roads Inventory” for inventory requirements for local roads.

- 17: Active Off Exclusive—A ramp, frontage road, or similar facility that is not maintained by FDOT and whose mileage is not included in Active Off the SHS reports.
- 81: Pending Trails or Pending non-motorized way.
- 82: Active Trails or Active non-motorized way.
- 83: Combo Trails or Combo non-motorized way.
- 84: Inactive Trails or Inactive non-motorized way.
- 85: Deleted Trails.
- 91: Pending Rail Line: New construction or rail line transfers anticipated to be added.
- 92: Active Rail Line: A rail line that is operational.
- 93 Combo Rail Line: A rail line that has combinations.
- 94: Inactive Rail Line—A SIS rail line that is no longer operational.
- 95: Deleted Rail Line.

### **Type (Road Type)**

Provides a consistent way to determine road inventory needs. They are not relevant for other purposes, such as highway access or highway design.

- 00: Mainline—Mainlines are a collection of through and other lanes that carry major traffic volumes and are included in the Department's standard mileage reports. These may be on or off the SHS. The status codes for this road type are Active On the SHS, Active Off the SHS, or Combination.
- 01: Ramp—A ramp is a segment of road that has one-way traffic with the primary purpose of allowing traffic to enter or exit a road with full or partial control of access. The status code for this road type is Active Exclusive or Active Off Exclusive.
- 03: Frontage Road—A roadway that allows some control of access between a mainline and nearby commercial areas or residences. The majority of traffic on the frontage road comes from the nearby mainline or goes to it. The status code for this road type is active exclusive or active off exclusive. A road that allows for access control between a mainline and nearby area, but has significant traffic going to or from other roads in addition to the mainline, is itself another mainline and not a frontage road.
- 08: Managed Lane—Managed lane refers to a toll lane that is in conjunction with an interstate that allows for variable situations depending on traffic volume and road conditions. An example is the I-95 Express. Another name for a managed lane is HOT (high occupancy toll) lane.
- 85: Non-Motorized Way—A trail.
- 90: Rail Line: A SIS rail line.

## Mode Type

Indicates the mode of travel.

- Rail Line: A rail line.
- Roadway: A concrete or unpaved roadway.
- Non-motorized Way (Trails): Not a roadway or rail line.

## Government Jurisdiction

Refers to the Government body that is legally responsible for the maintenance of the roadway. If any percentage of a road is state-owned, then it must be reflected as State Highways under System on the V/U/D screen. The following are Federal codes for all 50 states:

01: State Dept. of Transportation*	25: Other Local Toll Authority
02: County*	26: Private Toll
03: Town, Township	60: Federal Agency
04: Municipal*	62: Bureau of Indian Affairs
11: Other State Agency, Non-Toll	64: U.S. Forest Service
12: Other County Agency, Non-Toll	66: National Park Service
13: Other Town, Township, Non-Toll	68: Bureau of Land Management
14: Other Municipal Agency, Non-Toll	70: Military Reservation
15: Other Local Agency, Non-Toll	72: Corps of Engineers
16: Private, Non-Toll	74: Energy Research & Devel. Admin.
21: State Toll Authority* (must have Feature 122 OWNAUTH and TOLLROAD coded)	76: Tennessee Valley Authority
22: County Toll Authority	78: NASA 80—Fish and Wildlife Service
23: Town, Township Toll Authority	85: Non-motorized way*
24: Municipal Toll Authority	90: Rail Line*

\* The Government bodies based in Florida are County, Municipal, State Dept. of Transportation, State Toll Authority, Rail Line, and Non-motorized way.

## Overall Description

The common local name for the road represented by the roadway ID. For e.g., Main St SW. The following guidelines were developed to increase statewide consistency in naming roads.

1. Avoid using milepoint and technical terms, use the U.S. Postal standard street abbreviations instead.
2. Use all 40 characters as much as possible to avoid abbreviations.
3. Use U.S. Postal standard street suffix abbreviations.
4. Use the following abbreviations for directions:

N—North

SE—Southeast

NE—Northeast

SW—Southwest

NW—Northwest

E—East

S—South

W—West

5. Use the following standard format to denote county line (Name Co Line) e.g., Duval CO Line.
6. No certain punctuation or symbols—periods, commas, colons, semi-colons, @, &, etc.
7. List routes in the following order.
  - a. Interstate route/U.S. route/state road/local name: use hyphens for all roadways, interstate routes, U.S. routes, state roads, and local names.
8. No roadway IDs or ramp IDs.
9. No milepoints/mileposts.
10. One local name—just use local name (MERCER RD).
11. Multiple local names:
  - a. Use first and last local names (MERCER RD/DEBARY AVE).
  - b. Use the most prominent local road name.
  - c. Use all local names if they fit.
  - d. Or just use the state road number.
12. Local name with U.S. route and/or state road number:
  - a. List the route number(s) first, then the local name(s) e.g., U.S. route/state road/local name.
13. Active exclusives—Identify the facility it is on and its direction:
  - a. I-10 W ON RAMP FROM SR 21
  - b. I-10 E OFF RAMP TO SR 21
  - c. TURNPIKE TO SR 408 E



## Managing District

The District that manages the roadway (District 1, District 2, District 3, District 4, District 5, District 6, District 7, or Turnpike).

## Geographic District

The District in which the roadway exists. For example, roadway ID 08470001 is managed by Turnpike, but its geographic District is District 7.

## General Compass Direction

The predominant direction of the roadway.

1—North	5—South
2—Northeast	6—Southwest
3—East	7—West
4—Southeast	8—Northwest

## System

Describes the system on which the road resides. If any percentage of a road is State owned, then it must be reflected as State Highways under System on the V/U/D screen.

10—Federal Highways Only	14—State Park Roads
11—State Highways	15—Private Roads
12—County Roads	85—Non-Motorized Way
13—City Streets	90—SIS Rail Line

## State Highway System

A general description for the majority of the road. If any percentage of a road is State owned, then it must be reflected as State Highways under System on the V/U/D screen.

1—Interstate	4—Int./Art. (not used)
2—Turnpike	9—None
3—Primary	

## Controlling City

Supplies the current place code and city name.

## RCI Section Established Date (MM/DD/YYYY)

The origination date of the roadway ID when it was officially added to the SHS.

### Stationing Exceptions Exist?

If yes, then there are stationing exceptions. If no, there are no exceptions.

### Features/Characteristics Exist?

If yes, then features and characteristics exist. If no, there are none.

### FM Projects Exist?

If yes, then FM projects exist. If no, they do not. If an FM project exists, then the roadway ID cannot be removed from RCI.

## 3.4 Milepoints and Measurements

Milepoints are associated with roadway IDs and represent specific locations or physical points on the road. Milepoints follow the accumulated mileage along the road. Typically, milepoints start at the roadway ID's beginning milepoint (BMP) with a value of 0.000, and accumulate to the ending milepoint (EMP) of the roadway ID. It is preferred that alignment directions proceed generally from south to north or west to east. Milepoints are specified to three decimal places.

A milepoint represents distance from the starting point expressed in miles, to 1/1000 of a mile (3 decimal places). Thus, a milepoint of 0.075 would represent  $5,280 \times 0.075 = 396$  feet, while a milepoint of 1.075 would represent 5,676 feet ( $5,280 + 396$ ) from the starting point.

### 3.4.1 Unit of Measurement

Characteristics are measured in one of the units below.

Acre	Degrees	Hours	Lumen	Sq. Ft
Code	Each	ID No.	Miles	Sq. Yd
Days	U.S. Foot	Inches	Miles/hour	

### 3.4.2 Value Codes

Value codes correspond with a characteristic's particular unit of measure. The size of the value field is also given for each characteristic in terms of bytes. Where decimals are permitted, the decimal point does not count as a character space (i.e., 99.9 contains three bytes, 0.9 contains two bytes).

## 3.5 Features & Characteristics

For RCI purposes, a feature is a general grouping of physical attributes of a roadway, identified by a unique three-digit number and name. A characteristic is a more specific element of the feature and is identified by a unique name up to eight alpha characters. Features and characteristics are explained in greater detail in the Chapter 7 of the handbook.

To help understand the relationship between features and characteristics, features can be thought of in the same way as overall type of motor vehicle (sedan, truck, etc.), while characteristics can be thought of as the components of the vehicle (color, number of doors, etc.). As a more precise example, Feature 212 contains two characteristics, Number of Lanes NOLANES and Surface Width SURWIDTH. In the image below, notice that NOLANES is two and SURWIDTH is 24 feet.

**FIGURE 3.5 | EXAMPLE OF FEATURES AND CHARACTERISTICS**



### 3.5.1 Feature Attributes

#### Length Features

Length features are established for a discrete length along a roadway. These features are recorded in the RCI database from a beginning milepoint (BMP) to an ending milepoint (EMP). Length features may contain more than one characteristic.

111: State Road System

118: HPMS

112: Federal System

119: HPMS Universe

113: AASHTO

120: Type Road

114: Local Name

121: Functional Class

115: Special Designation

122: Road Access

116: Freight Network

123: Proposed Designations

124: Urban Class	230: Surface Description
125: Adjacent Land Class	232: Surface Layers
137: Maintenance Area Boundary	233: Base
138: Roadway Realignment	245: Roadside Ditches
139: New Alignment	258: Structures
140: Section Status Exception	272: Fencing
141: Stationing Exception	273: Cable Barriers
142: Managed Lanes	311: Speed Zone
143: Assoc. Station Exception	313: Parking Restrictions
144: FL Intra. Hwy System (inactive)	323: School Zones
145: Level of Service	330: Traffic Flow Break Station
146: Access Management	331: Traffic Flow Breaks
147: Strategic Intermodal System (SIS)	361: Service Plazas
212: Through Lanes	421: Roadside Ditch Cleaning
213: Auxiliary Lanes	422: Median Ditch Cleaning
214: Outside Shoulders	451: Striping
215: Highway Median	481: Highway Maintenance Class
216: Bike Lanes & Sidewalk	801: Trails
217: Sidewalks	901: Rail Line Facility
219: Inside Shoulders (R/L only)	902: Passenger Rail
221: Horizontal Curve	

### **Point Features**

Point features locate specific items that occur at a particular point on the roadway. These features are recorded at a single milepoint in the RCI database. Point features may contain more than one characteristic.

220: Non-Curve Intersection	248: Outfall Ditches
241: Crossdrains & Box Culverts	251: Intersections
243: Off Roadway Areas	252: Interchanges

253: Railroads

326: Traffic Monitoring Sites

257: Crossovers

360: Toll Plazas

312: Turning Restrictions

431: Parks & Rest Areas

320: Milemarker Signs

460: Attenuators

322: Signals

903: Rail Passenger Station Name

### **Total Features**

These features record area volumes along roadways. Total features may contain more than one characteristic.

242: Storm Sewer

413: Landscape Area

256: Turnouts

443: Delineators

271: Guardrail

452: Symbols & Messages

275: Misc. Concrete Structures

453: Crosswalks

341: Lighting

454: Stopbars

411: Roadside Mowing

455: Raised Pavement Markers

412: Weed Control

480: Highway Signs

### **Administrative Features**

Include some items visible in the field and others that must be collected in the District or FDOT TDA through documents or by designations.

111: State Road System

122: Facility Classification

112: Federal System

123: Proposed Designations

113: AASHTO

124: Urban Classification

114: Local Name

125: Adjacent Land Classification

115: Special Designation

137: Maintenance Area Boundary

116: Freight Network

138: Roadway Realignment

118: HPMS

139: New Alignment

119: HPMS Universe

140: Section Status Exception

120: Type Road

141: Stationing Exception

121: Functional Classification

142: Managed Lanes

143: Assoc. Station Exception

146: Access Management

144: FL Intra. Hwy System (inactive)

147: Strategic Intermodal System (SIS)

145: Level of Service

### **Automatically Generated Features**

These are automatically generated by the RCI system when the corresponding feature data is entered in RCI.

139: New Alignment

143: Associated Station Exception

### **Secured Features**

Only FDOT TDA personnel can update secured data elements. The District Offices will notify FDOT TDA when changes to secured features are needed using the RCI/LRS package process.

112: Federal System

146: Access Management

115: Special Designation

147: Strategic Intermodal System (SIS)

116: Freight Network

801: Trails

124: Functional Classification

901: Rail Line Facility

144: FL Intra. Hwy System (inactive)

902: Passenger Rail

145: Level of Service

903: Rail Passenger Station Name

### **Interlocking Features with Interlocking Characteristics**

A feature may have multiple characteristics that share the same beginning and ending milepoint extent. Once the characteristics within the feature interlock, only the BMP and EMP of the interlocking characteristic group need to be changed; the RCI system will automatically change the milepoints for all the characteristics that are interlocked.

Only characteristics within the same feature can be interlocked. Features cannot be interlocked with other features.

Once the characteristics are interlocked within a feature, they cannot be unlocked. In order to do so, the single characteristic or group of characteristics must be deleted then re-added.

116: Freight Network

143: Assoc. Station Exception

118: HPMS

144: FL Intra. Hwy System (inactive)

138: Roadway Realignment

146: Access Management

139: New Alignment

147: Strategic Intermodal System (SIS)

140: Section Status Exception

212: Through Lanes

141: Stationing Exception

213: Auxiliary Lanes

215: Highway Median	311: Speed Zone
216: Bike Lanes & Sidewalk	320: Milemarker Signs
221: Horizontal Curve	326: Traffic Monitoring Sites
233: Base	330: Traffic Flow Break Station
251: Intersections	331: Traffic Flow Breaks
252: Interchanges	360: Toll Plazas
253: Railroads	361: Service Plazas
273: Cable Barriers	801: Trails

### Physical Features

Include components that are quantified or measured. They are collected in the field, and each has specific dimensional accuracy requirements. They may also include characteristics that are not collected in the field.

212: Through Lanes	242: Storm Sewer
213: Auxiliary Lanes	243: Off Roadway Areas
214: Outside Shoulders	245: Roadside Ditches
215: Medians	248: Outfall Ditches
216: Bike Lanes & Pedestrian Sidewalk	251: Intersection
217: Sidewalks	252: Interchanges
219: Inside Shoulders (R/L only)	253: Railroads
220: Non-Curve Intersection Point	256: Turnouts
221: Horizontal Curve	257: Crossovers
230: Surface Description	258: Structures
232: Surface Layers	271: Guardrail
233: Base	272: Fencing
241: Crossdrains	275: Misc. Concrete Structures

## 3.5.2 Characteristics

Characteristics contain the individual unique data elements that give definition to their associated feature. The following are components of a characteristic.

### Road Side

Used to indicate which side of the roadway the characteristic appears. A roadway is divided if it contains a median separator or a divider located longitudinally along the roadway serving to separate traffic in opposing directions. A roadway is composite if it does not contain a median. If the roadway is divided, the characteristics that are not composite must be entered for both the left side and the right side of the road. All characteristics found to exist either on the physical centerline or to the right of the physical centerline, as determined by direction of increasing milepoints, are recorded as right. All characteristics to the left of the physical centerline are recorded as left (non-inventory side).

- C—Composite (undivided)
- R—Right (inventory side)
- L—Left (non-inventory side)

### Composite Features

Characteristics in these features are always coded as composite for any type of roadway (divided or undivided).

111: State Road System	125: Adjacent Land Classification
112: Federal System	138: Roadway Realignment
113: AASHTO	139: New Alignment
114: Local Name	140: Section Status Exception
115: Special Designation	141: Stationing Exception
116: Freight Network	142: Managed Lanes
118: HPMS	143: Assoc. Station Exception
119: HPMS Universe	144: FL Intra. Hwy System (inactive)
120: Type Road	145: Level of Service
121: Functional Classification	146: Access Management
122: Road Access	147: Strategic Intermodal System (SIS)
123: Proposed Designation	215: Medians
124: Urban Classification	251: Intersections



252: Interchanges

330: Traffic Flow Break Station

253: Railroads

331: Traffic Flow Breaks

326: Traffic Monitoring Sites

901: Rail Line Facility

### Composite, Left, or Right Features

Characteristics in these features must be coded as composite for an undivided roadway or appropriately left or right for a divided roadway. This must agree with Feature 120 TYPEROAD, which indicated whether a given roadway segment is divided.

212: Through Lanes

220: Non-Curve Intersection\*

213: Auxiliary Lanes

221: Horizontal Curve\*

214: Outside Shoulders

230: Surface Description

216: Bike Lanes & Sidewalk

232: Surface Layers

219: Inside Shoulders

233: Base

258: Structures\*

360: Toll Plaza

311: Speed Zone

361: Service Plazas

320: Milemarker Signs

*\* May be left, right, or composite on a divided highway.*

### Offset Distance and Direction

The offset distance is the measured distance from the edge of the roadway to the characteristic. The offset direction can be left, right, or both and depends on the direction of travel. To determine whether the offset is left or right, first determine the inventory direction of the roadway. Roadway IDs are assigned milepoints increasing in the inventory direction, usually from west to east and south to north. The inventory direction with increasing milepoints is the right side of the roadway. The inventory direction with decreasing milepoints is the left side of the road. The following codes are used to indicate the offset location of roadway characteristics.

- 1—Right and Left (composite)
- 2—Right (right side)
- 3—Left (left side)

### 3.5.3 *Inventory Methods*

The following inventory methods describe the typical means by which data is collected:

- Automatic: Automatically generated by the computer (no user input required).
- Field: Physically measured at the site.
- None: Data is provided from an external source.
- Office: Collected from administrative sources (plans, maps, classifications, etc.).
- Office/Field: Collected from an administrative source or by physically measuring the characteristic.
- Video/Field: Collected from video log (if current and available) or by measuring in the field.
- Imagery: Collected from aerials, DOQQ's, etc.

### 3.5.4 *Inventory Types*

The Department conducts inventories of roadway data elements based on the type of road, its ownership, function, and physical characteristics. Each of these categories has its own requirements.

- Active On the SHS: Active roadways are all roads on the SHS, defined as the roadway network owned by the State of Florida and maintained by the Department. The term “Active On the SHS” means that the roads are currently being used. The SHS includes interstate routes, numbered U.S. routes, and state roads. The term “Active On the SHS” has also replaced the term “active-on,” which, while occasionally encountered, is no longer used. A more appropriate term is “On-system.”
- Active Off the SHS: Active Off the SHS roadways are owned by counties and cities but are of special interest to the Department. The Active Off the SHS inventory is generally not as detailed as the Active On the SHS inventory; however, some Districts may maintain more information for their Active Off the SHS roads than is required.
- Active Exclusive: Active exclusive roadways are typically ramps or frontage roads. The term “active” means that it is currently being used and the term “exclusive” means that it is not included as part of the Active On the SHS or Active Off the SHS roadway system mileage.
- Local Active Off: Local roads are not owned by the state nor are they on the SHS.
- New Construction/Pending: New construction roadways are roads being added to the SHS.
- Managed Lanes: Managed lanes are tolled roadways that assist with the traffic flow along interstates.

## 3.6 Data Collection

The data collection of features and characteristics in RCI is the responsibility of each owning office. All data is required to meet the minimum quality standards outlined in the handbook or noted in guidance from Central Office.

District data collectors are encouraged to coordinate with TDA Office staff on unique situations which are not covered in this Handbook and provide their recommendations/business requirements.

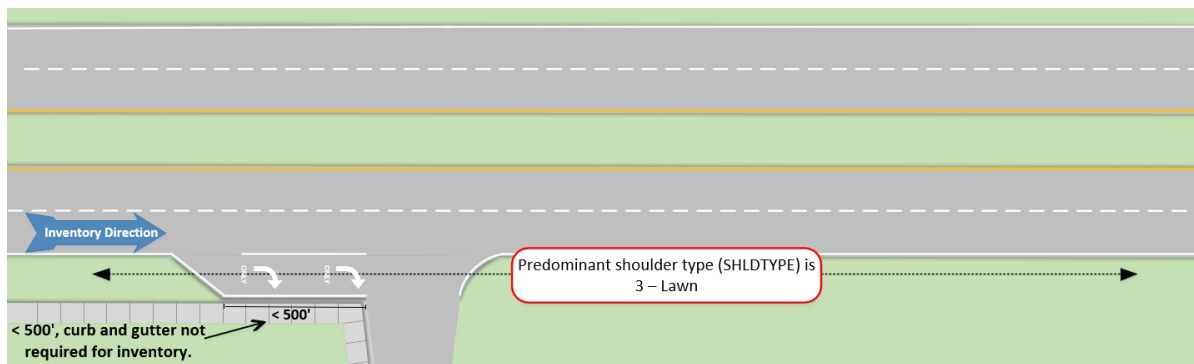
### 3.6.1 Strategic Development and Planning Data Collection Requirements

Strategic Development and Planning data collection requirements shall adhere to a minimum data collection standard in coordination with the FDOT data business needs specified in this handbook. Districts have the discretion to exceed the minimum requirements for data collection, however; data collection methods must be implemented consistently across a given district. All collected data is subject to evaluation through the Central Office quality assurance programs. All statewide and district QA/QC procedures shall be followed to maintain governance, quality, and integrity for accountability purposes. These standards are intended to meet the current FDOT business data user needs for state and Federal reporting, asset management, estimates, safety analysis and performance and condition monitoring. Development of data collection standards is administered through coordination with TDA Office and District data collection teams.

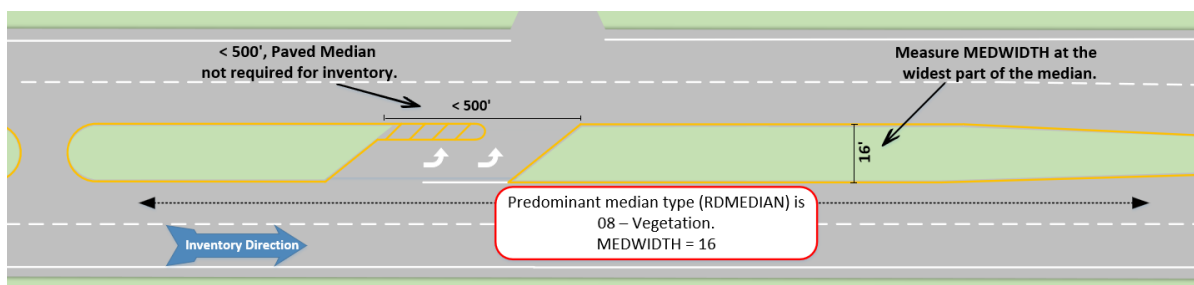
#### Data Collection Tolerance

Inventory shall represent the predominant roadway feature for RCI Features 214: Outside Shoulders, 215: Median, and 219: Inside Shoulders. For these features, any changes that occur at a length of 500 ft or greater must be recorded.

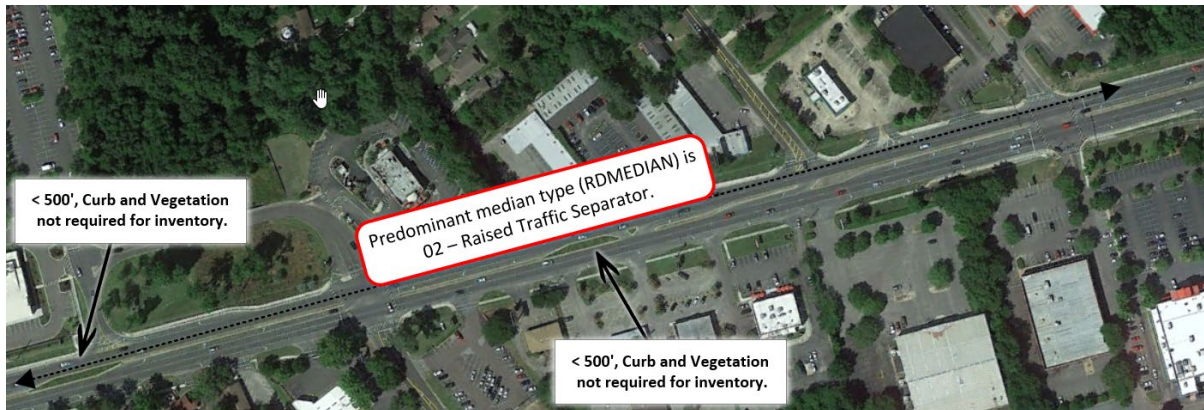
**FIGURE 3.6 | EXAMPLE OF FEATURE 214: OUTSIDE SHOULDERS, COLLECTED BY PREDOMINANCE**



**FIGURE 3.7 | EXAMPLE OF FEATURE 215: MEDIAN, COLLECTED BY PREDOMINANCE**



**FIGURE 3.8 | EXAMPLE OF FEATURE 215: MEDIAN, COLLECTED BY PREDOMINANCE**

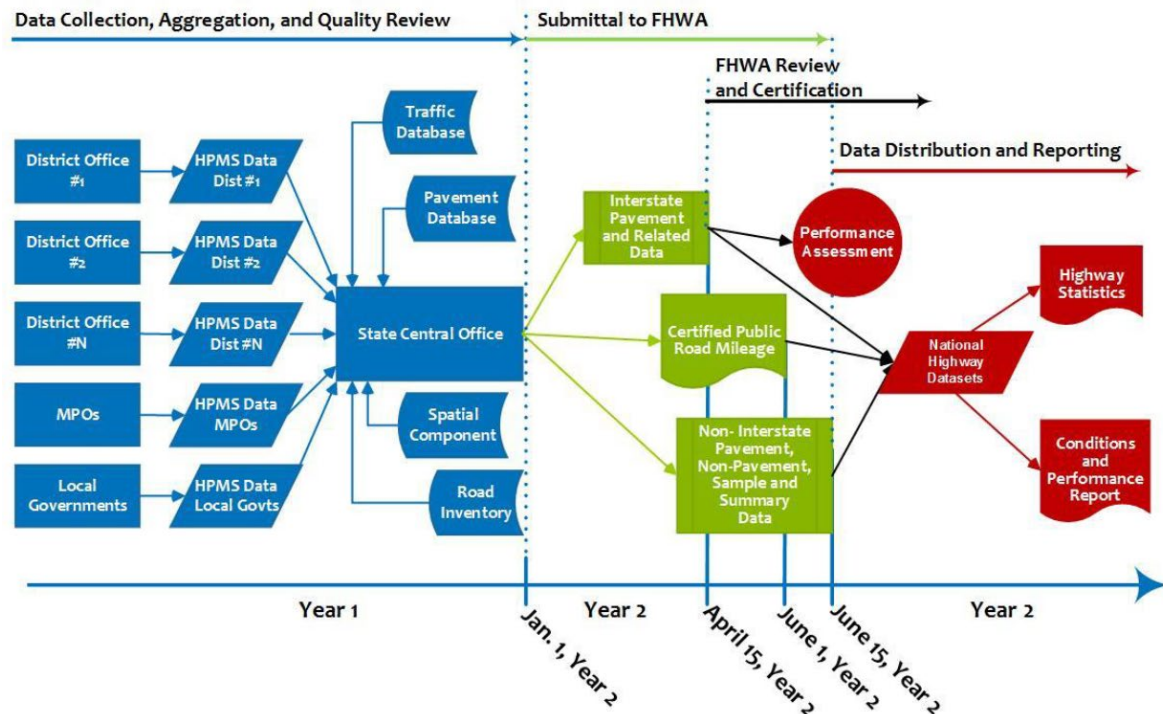


Additionally, data collection requirements for features and characteristics require some characteristics to start/stop at common milepoints. Data shall be collected in a way that does not violate current DART data validations. Appendix A of this handbook identifies the features for which collection by predominance is applicable and the circumstances for which each characteristic is required to be collected.

## 3.7 HPMS

The HPMS is a national level highway transportation system database that includes roadway inventory data to describe public road conditions and performance. It was developed in 1978 to replace numerous uncoordinated annual state data reports as well as biennial special studies conducted by each state to support a 1965 congressional requirement for a report on the Nation's highway needs. HPMS data is reported annually to the FHWA per the specified requirements in the HPMS Field Manual.

**FIGURE 3.9 | WORKFLOW FOR THE PROCESS AND ROLES INVOLVED IN THE PREPARATION OF A STATE'S HPMS DATA SUBMITTAL**



Source: <https://www.fhwa.dot.gov/policyinformation/hpms/fieldmanual/page01.cfm#toc244584301>.

### 3.7.1 Purpose of HPMS

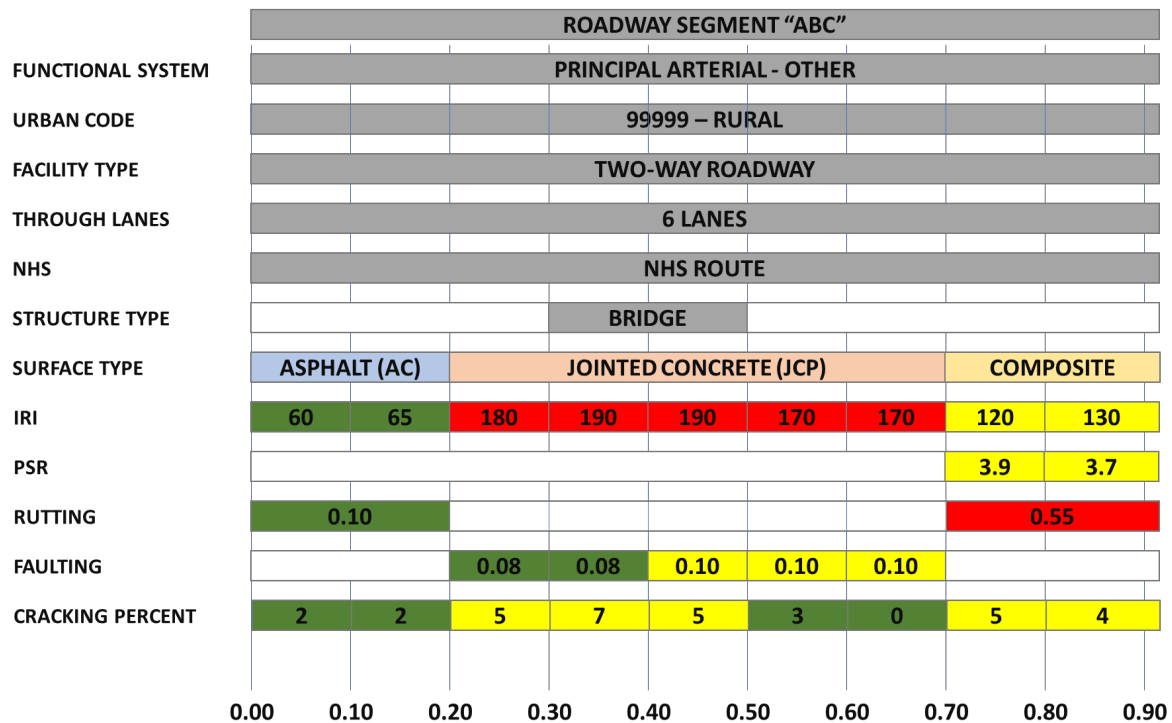
The main purpose of HPMS is to provide data that reflects the extent, condition, performance, use, and operating characteristics of the Nation's highways. The data is the source of a large portion of information published in the Department's annual Mileage reports as well as various FHWA reports and publications.

HPMS data is also used for assessing highway system performance under FHWA's strategic planning process and for apportioning Federal Aid Highway Program Funds. HPMS supports the Estimation of Highway Investment Requirements (biennial report to Congress), FHWA's strategic planning efforts, transportation and air quality planning, development of a National Highway System (NHS), and other uses by a diverse group of partners and stakeholders.

The Department collects HPMS data as part of its RCI activities. Thus, the RCI maintained by the Department fully reflects the requirements of the HPMS. A sampling procedure is used in recording some of the roadway condition data. The data is stored primarily in Feature 118. Feature 119 includes data required for HPMS on more than just samples.

Figure 3.10 illustrates a view of the HPMS data submitted from state departments of transportation (DOT) to FHWA.

**FIGURE 3.10 | SAMPLE VIEW OF HPMS DATA**



### Transportation Performance Management Requirements

The Moving Ahead for Progress in the 21<sup>st</sup> Century Act (MAP-21) and the Fixing America's Surface Transportation Act (FAST Act) transformed the Federal-aid highway and transit programs by establishing new performance-based planning requirements for state DOTs, Metropolitan Planning Organizations (MPOs), and providers of public transportation services. Transportation Performance Management (TPM) is a strategic approach that uses system information to make investment and policy decisions to achieve transportation system performance goals.

A major element of TPM is the tracking and calculation of performance measures that Congress instructed U.S. DOT to establish in the seven (7) focus areas of safety, infrastructure condition, congestion reduction, system reliability, freight movement and economic vitality, environmental sustainability, and reducing project delivery delays.

Specific requirements for implementing the performance management provisions of MAP-21 and the FAST Act are codified in the Code of Federal Regulations. HPMS supports TPM safety, pavement condition, and system performance rules. The HPMS data is also used to calculate performance measures for system performance/congestion, and to perform significant progress determinations as applicable.

#### *Pavement Condition Data*

TPM requirements for pavement condition measures have resulted in changes to the collection specifications, comprehensiveness, and submission timelines for some HPMS data items. Complete details on these requirements are found in the FHWA HPMS Field Manual.

## *System Performance Data*

The newest use of HPMS is serving as the repository for the metrics and related data used to calculate the three travel-time-based performance measures:

- Travel Time Reliability.
- Truck Freight Reliability.
- Peak Hour Excessive Delay (PHED).

This Travel Time Metric Data will be calculated by FDOT based on a travel time dataset outside of HPMS and must be submitted annually to HPMS by June 15<sup>th</sup>.

### **3.7.2 HPMS Section Types**

- **Universe Record:** A Universe Record is any section of roadway (Active On the SHS or Active Off the SHS) that is an NHS connector and/or functionally classified above a local road. Universe Record data consist of a complete inventory of length miles by functional system, jurisdiction, geographic location, (rural, small urban, urbanized, and National Ambient Air Quality Standards (NAAQS) non-attainment areas) and other selected characteristics.
- **Full Extent Data:** Full Extent Data refers to a limited set of data items that are reported for an entire roadway system such as the NHS or an entire functional system (e.g., interstate roadways).
- **Sample Panel Data:** Sample Panel Data consists of data items that are reported for a select portion of a given roadway system. The sampled sections are a fixed sample panel of roadway sections that are monitored from year to year and, when expanded, represent the Full Extent of the systems that are sampled. The more detailed information collected for a Sample Panel section is used to represent similar conditions on the associated functional system after expansion.
- **Partial Extent Data:** Partial Extent Data refers to those data items that are reported on a Full Extent basis for some functional systems and on a Sample Panel basis for other functional systems.
- **Statewide Summary Data:** Statewide Summary Data includes information on travel, system length, and vehicle classification by functional system and area type, in addition to land area and population by area type. The area types include rural, small urban, and individual urbanized, non-attainment, and maintenance areas. Pollutant type is also reported as an indicator of air quality in non-attainment areas.
- **Standard Sample:** A Standard Sample is any randomly selected portion of the roadway (Active On the SHS or Active Off the SHS) that is representative of the universe. The data is reported for a continuous length of roadway that is homogeneous with respect to the physical, operational, administrative, and jurisdictional characteristics being reported.

### **3.7.3 HPMS Inventory Types**

There are three HPMS data inventory scenarios. These include:

- Data for the three-year HPMS Standard Sample inventory cycle.



- Annual collection of new standard samples.
- Additional characteristics for off the SHS HPMS standard samples.

## 3.8 Data Governance

### 3.8.1 General Interest Roadway Data (GIRD) Procedure

The General Interest Roadway Data (GIRD) procedure establishes the FDOT Central Office, TDA Office, District Offices and Florida Turnpike Enterprise responsibilities, requirements, standards for data collection, validation and management, quality assurance and control, and basic reporting of general interest roadway data in the RCI database.

This procedure affects the Districts, and Central Office who are responsible for the collection, verification, storage, reporting, and management of transportation data requirements by FDOT and FHWA. Transportation data provides information about FDOT infrastructure assets of state interest. RCI stores transportation data as features and characteristics. The data is organized to support transportation asset management functions that require information on location, ownership, status, classification, extent, quantity, condition, and performance. The data supports FDOT analyses for decision-making, project programming, development of the state and federally mandated reports, and transportation asset reporting requirements.

Additionally, this procedure details how the TDA Office integrates transportation data collected by offices such as:

- Office of Maintenance.
- Traffic Engineering and Operations Office.
- State Materials Office.
- Systems Implementation Office.
- Forecasting and Trends Office.
- Office of Freight, Logistics, and Passenger Operations.
- District Right-of-way Office.

The GIRD procedure can be obtained at: <https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/statistics/rci/525-020-310.pdf?topicNum=525-020-310>.

### 3.8.2 Road Numbering and Road Jurisdiction Transfers

Transportation System Jurisdiction and Numbering, Topic No. 525-020-010 provides the procedural requirements that should be followed for transportation system jurisdiction and numbering. FDOT TDA Office publishes a Transportation System Jurisdiction and Numbering Handbook which serves as a supplement to the procedure and provides information on how to meet the procedural requirements. It provides additional guidance, sample letters, forms, and background material, including several different scenarios to follow when preparing Transfer Agreements or jurisdiction adjustment actions and supporting documentation.



The Transportation System Jurisdiction and Numbering Handbook can be obtained from the FDOT TDA website: <https://www.fdot.gov/statistics/tsopubs.shtm>.

### ***3.8.3 Urban Boundaries and Functional Classification***

Urban Boundaries and Functional Classification Procedure, Topic No. 525-020-311 sets forth the procedures and responsibilities for designating urban boundaries and determining Federal functional classification designations for all public roads. Urban boundaries define the extent of the geographic area determined to be urban. The functional classification designation depends upon the function of the road and determines the Federal-aid system assignments. Adjustments to the census urban boundary and changes to the functional classification require FHWA approval.

FDOT TDA Office publishes an Urban Boundary and Functional Classification Handbook that provides additional guidance, sample letters and forms, and background material in support of the Procedure. This handbook can be obtained from the FDOT TDA Office website: <https://www.fdot.gov/statistics/tsopubs.shtm>.

### ***3.8.4 Transportation Data Quality Management***

The TDA Office is required to monitor and support the seven District Offices, Turnpike Enterprise and Central Office entities that provide transportation program data. The TDA Quality Management program maintains quality assurance methods used to ensure the critical requirements for data collection, maintenance, and reporting are met. The Quality Management (QM) team maintains the Quality Assurance Monitoring Plan (QAMP) to clearly identify areas of responsibility for both the TDA Office and the District staff for reliable, organized, and accurate statewide data. The QAMP details the critical requirements for the HPMS, Motorized Short Term Traffic Monitoring Program, Transportation System Designations, Linear Referencing System, Roadway Characteristics Inventory, and other program areas required for state and Federal reporting. Additionally, the QM team conducts District Quality Evaluation (DQE) reviews and Quality Assurance Reviews (QAR) with assistance from Districts.

Information regarding all Transportation Data Quality Management (TDQM) processes, including DQEs, QARs, and the QAMP can be obtained from FDOT TDA website:

<https://www.fdot.gov/statistics/tsopubs.shtm>.

### ***3.8.5 Mileage Reports***

The highway mileage reports provide information on centerline miles, lane miles and daily vehicle miles traveled (DVMTs). The reports include a statewide summary by county, district, and detailed data on each of the three areas by highway system and functional classification.

The various mileage reports prepared by FDOT TDA Office are:

- **City/County Road Mileage Reports/Certified Public Mileage Report:**
  - *Content of Reports*—The City/County Road Mileage Report contains the centerline miles of roads under the jurisdiction of each city and county in Florida. This number is also broken down into paved and unpaved mileage. The report is produced in the Spring of each year, with data as of September 30 of the previous year.
  - *Purpose of Report*—This mileage data is part of a comprehensive report of mileage, traffic, pavement, and other information that is submitted to the FHWA each year. The data are used to compile national

- data, including the need for Federal highway funding. They are also used to help determine the share of the national highway funding that Florida will receive.
- *Source of Data*—The data for each local Government is supplied by that Government to FDOT each year. They are required to do so by Chapter 218.322, Florida Statutes. They use FDOT's Form-TM to provide the data.
  - **Public Road Mileage and Travel Reports**—These reports are available annually and show Centerline Miles and DVMT.
  - **State Highway System Mileage and Travel Report**—FDOT reports on SHS Mileage have traditionally been issued as of June 30 and December 31 of each year, with the most current data available on those dates. The reports are available for SHS, NHS, and SIS.
  - **Florida Interchange Report**—This includes interchange numbers and milepost locations for Interstates and most expressways.

# **C H A P T E R 4**

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## **DATA COLLECTION PROCESS**





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## CHAPTER 4. DATA COLLECTION PROCESS

# 4

This chapter describes the general methods used to conduct an inventory for the following seven roadway inventory types:

1. New Construction/Pending.
2. Active On the State Highway System (SHS).
3. Active Exclusive.
4. Active Off the SHS.
5. Local Roads.
6. Managed Lanes.
7. Highway Performance Monitoring System (HPMS) Samples.

## 4.1 Introduction

This chapter describes the general methods used to conduct an inventory for seven roadway inventory types. Appendix A provides data collection matrices to facilitate tracking the required features and characteristics; these matrices display the collected data elements according to functional classification and road ownership.

The data collection processes constitute three basic activities:

1. Pre-Inventory—Perform analysis to prepare for field data collection.
2. Field Inventory—Perform field data collection and validation of data.
3. Post-Inventory—Code/update data in Roadway Characteristics Inventory (RCI), run Data Analysis and Reporting for Transportation (DART) validation edits, coordinate with District offices, generate and distribute Straight Line Diagrams (SLD), update Roadway Inventory Tracking Application (RITA), and provide necessary notifications.

## 4.2 The Data Collection Process

This section presents a detailed explanation of the data collection process for RCI, including Highway Performance Monitoring System (HPMS) samples.

### 4.2.1 Pre-Inventory Data Collection

Steps 1 through 4 of the pre-inventory data collection process are conducted in the office, while steps 5 through 7 are conducted in the field.

#### Step 1: Generate an Inventory Schedule

The first step of the data collection process is generating an inventory schedule. The District designee generates the five-year RCI and three-year HPMS sample inventory schedule from RITA based on the inventory type.

Table 4.1 provides the inventory schedule and its fields.

**TABLE 4.1 | INVENTORY SCHEDULE**

Roadway ID	RCI Update			SLD		Field Inventory Date	Under Construction?	Comments
	Date	Deadline	Previous	Update Date	Dist. Date			

#### Step 2: Develop a Detailed Plan for Data Collection

Using the inventory schedule generated from RITA and the geographic location of the roadways, the Districts should develop a detailed and efficient plan for data collection. Factors to consider while developing the plan include geographic location, the deadline for the data inventory, information on construction projects,

potential special requests from agencies, and special events that impact travel and traffic (such as spring break, holidays, and travel restrictions).

### **Step 3: Collect and Review Existing/Historical Data**

Prior to the field visit for data collection, data collectors should gather and review any existing and historical information on the roadways. This includes the following tasks:

- Review the current SLD and County Section Key Sheet insets (if applicable) for the roadway ID, beginning milepoints (BMP) and ending milepoints (EMP) of the roadway, inventory date, revision date (if applicable), county information, and features and characteristics.
- Research and evaluate any roadway that begins or ends at an interchange prior to the inventory to ascertain the alignment of the roadway.
- Generate and review the features and characteristics sort report from the RCI database for additional detailed information pertaining to the roadway.
- Check data for obsolete characteristic codes; only current, valid codes should be used upon re-inventory. See Appendix B for a list of obsolete codes.
- Review the LRS alignment in combination with aerial images for location accuracy of the roadway.
- Reference secondary sources such as Video Logs, Google Street View, or other street level imagery to support primary sources of field inventory data collection to create the most up-to-date information of field conditions for RCI, SLDs, and LRS alignments.
- Review the right-of-way maps for additional information such as extents or ownership information.
- Contact District Construction Office, county/city Public Works Department, and other regional agencies to determine if any of the roadways are under construction or planned for construction within the planned inventory cycle. Request construction/as built plans for recently completed projects from the relevant department/agency.
- Contact the Office of Maintenance for the bridge report to verify the bridge number, crossing facility, and bridge length and width.
- Contact the District Maintenance regarding guard rails, and any maintenance items. Coordinate the inventory schedule with the maintenance office.
- Contact Traffic Engineering and Operations for speed studies, speed limits, and any other traffic operations items. Coordinate the inventory schedule with the traffic engineering and operations offices.

### **Step 4: Verify Administrative Data**

As a next step, the data collectors should verify the administrative features and characteristics for the roadway with the latest available documentation. Contact the appropriate owning office for each feature as specified in Chapter 7 of this handbook to coordinate data updates or verification. Table 4.2 lists these features and characteristics:

**TABLE 4.2 | LIST OF ADMINISTRATIVE FEATURES AND CHARACTERISTICS**

Feature	Characteristic(s)
111	STROADNO, STRDNUM2
112	FAHWYSYS, OLDFASYS, SPECSYS, STGHWNWK, TRAVLWAY
113	USROUTE, USROUTE2
114	LOCALNAM
115	SCENEHWY, SCENEDTE, SCENEEXT
116	NHFN, NHFNCON
117	FIPSPLCD, FIPSUACD
119	BASETHIK, BASETYPE, FLEXTHIK, HOVNUMLN, HOVTYPE, OVRYTHIK, RAMPFC, RIGIDTHIK, TOLLCHGS, TOLLNAME, TOLLTYPE, YRCONST, YRIMPT
121	FUNCLASS
123	PROFUNCL
124	HWYLOCAL, PLACECD, URBAREA, URBSIZE
137	CCNUMBER
139	OALIGNID, OALNBGPT, OALNENPT (all are automatically generated)
140	OSDATE, STATEXPT
143	BEGSECPT, ENDSECPT, RDWYID (all are automatically generated)
147	SISFCTPx, SISMPIDx
330	FLWBRKID, TRFBRKCD
331	AADTDATE, AADTTYPE, AVGDFACT, AVGKFACT, AVGTFACT, SECTADT

#### **Step 5: Complete Equipment and Document Checklist**

An equipment and document checklist will ensure that the data collectors gathered all the required items before the field inventory. Use the template provided in the Appendix C.

#### **Step 6: Complete Vehicle Safety Inspection Checklist**

A vehicle inspection and safety check will ensure that the vehicle is operable before leaving the parking lot. Perform and fill out all necessary vehicle inspections listed in the vehicle log book. Use one of the Vehicle Safety Inspection Sheet Examples from the Appendix C.

#### **Step 7: Calibrate the Distance Measuring Instruments**

Distance Measuring Instruments (DMI) are vehicle-installed, electronic instruments that measure distances with a specified accuracy. These devices record distances for logging points along a given route. The precision requirement and calibration procedures of DMIs are listed below.

- The DMI should be precise to within five feet or 0.001 mile per mile.
- Maintain the calibration using the following procedures:

- Check the calibration of the DMI at the start of each field inventory day. An accurate DMI is extremely important.
- Check the tire pressure before the start of each field inventory day to ensure the accuracy of the DMI. Changes to the tire pressure can affect the accuracy of the DMI. Several factors—pulling off the road onto shoulders, jumping the curbs and medians, running over nails, and weather conditions—can affect tire pressure. All four tires must be set at the same pressure.
- The Global Positioning System (GPS) DMIs are calibrated automatically and do not require field calibration. However, before proceeding with the inventory, the field team should acquire the best possible GPS satellite reception. GPS DMIs receivers must be placed on the top exterior of the vehicle and follow all the manufacturer instructions.

## 4.2.2 *Field Inventory Data Collection*

### **Step 1: Collect Required Data in the Field**

The field team should be clearly visible to perform safe field data collection and will undertake the following steps during the inventory process:

1. Locate an area near the beginning of the roadway ID to pull the vehicle safely off the road (other than sidewalks or bike lanes).
2. Check vehicle safety and warning devices for proper placement and operation.
3. Ensure the field inventory sheets/SLDs and writing instruments/equipment are readily available. Vehicle strobe lights should be turned on. Class 2 safety vests must always be worn.
4. Drive the entire length of roadway. When inventorying a roadway, FDOT recommends a precursory drive-through. This provides the field team with familiarity of the roadway, notes any current construction in progress, the flow/speed of traffic, and the main operational use. This information helps determine the route will be safe to drive at the necessary slow speeds to collect the data or if an attenuator truck should accompany the data collection effort for safety.
5. Drive at a constant slow speed to make sure that the data is inventoried accurately. Maintain a safe speed to collect the necessary data and keep the flow of traffic moving.
6. Whenever possible, the field team should collect data while driving in the outside lane (not the shoulder, sidewalks, and/or bike lanes). Obey all traffic rules and regulations.
7. Be consistent with reference points (door lock, vehicle mirror) and always use the same reference point throughout the inventory.
8. Collect and record point feature information from intersections, traffic counters, and structures including traffic counter numbers, street names, bridge numbers, and railroad crossing numbers.
9. Refer to strategic development and planning data collection requirements outlined in Section 3.6.1 of the handbook.
10. The maximum allowable milepoint deviation inside an urban boundary is 0.010 mile (+/- 53 feet).

Effective January 2016, all roadways are to be inventoried using the tolerance of 0.01 mile (+/- 53 feet). By January 2021, all RCI milepoints should be in compliance with this change (as discussed in the Dec 2015 TTF meeting.)

If multiple changes occur within 0.010 miles of each other, record them at the same milepoint.

### Unique Situations

#### *County Lines*

- When a roadway ID section begins at a county line, the beginning milepoint should be zero. When a roadway ID section is built backward from a county line, allow for sufficient mileage to accommodate lengthening as the road is backed down to zero.
- Information on the county line locations may be obtained from the individual counties.
- Many times, a county line corresponds to a monument/marker, a fence line, or a tree line.
- When a county line follows a river, the roadway ID will begin or end at the bridge joint regardless of the surveyed county line. The bridge number will identify its associated county. If the bridge belongs to the county being inventoried, then the bridge is part of the inventoried roadway ID.

#### *District Boundaries*

- Abutting roadway IDs between District boundaries should use the same physical point location for the BMPs and EMPs. Coordinate with bordering Districts to ensure that there are no overlaps or gaps in the statewide roadway network.

#### *State Boundaries*

- Abutting roadway IDs between state boundaries should use the same physical point location for the BMPs and EMPs. Coordinate with bordering state to ensure that there are no overlaps or gaps in the roadway network.

#### *Interchanges*

- The beginning and ending milepoints of abutting roadway IDs at an interchange would be at the distant gore point of the farthest ramp.

### Steps for Locating Difficult Inventory Items

- Place a mark on the road to show features that are difficult to see on the left-side inventory. These include culverts, angled intersections, and facility crossings. Use temporary orange construction paint to assist with the inventory to help ensure accuracy of the recorded milepoints.
- Mark the BMPs and EMPs of a roadway facility crossing with a temporary paint dot at the bottom of barrier walls.
- If a railroad crossing has a bridge deck, mark the BMP of the crossing with a paint dot at the bottom of the barrier wall in conjunction with the bridge deck. Calculate the EMP by offsetting the BMP by 0.002 miles. These two points are so close together that measuring them is difficult.
- If a bridge is skewed, mark the left bridge BMP and EMP. When there are two bridges for the segment and the left and right bridges are offset from one another, mark with a dot on the top of the inventory direction bridge.



- Mark the BMP and EMP of a river facility crossing with a dot at the bottom of the barrier wall in conjunction with a dot on the bridge deck.
- If a ramp is difficult to see, mark it on the inventory right shoulder.
- On angled roadways, mark where the centerline of the crossing street intersects the centerline of the inventory street.

### 4.2.3 *Post-Inventory Data Collection*

After the field collection process is complete, the team should obtain data that could not be collected in the field from construction plans. Use the latest construction plans available by contacting the District Construction Office for final plans.

#### **Step 1: Gather Data from Construction Plans**

The latest construction plans can be used to gather data that could not be collected in the field. The construction plans can be used to gather data for Feature 220: Non-curve Intersection and Feature 221: Horizontal Curve. If plans are not available, the team should contact the District Design Office for assistance in obtaining the curve data for the roadway.

All the existing and historical documents collected as a part of the pre-inventory process and the field inventory sheet(s) and marked-up SLDs from the field inventory process shall be provided to the District's RCI database input team.

#### **Step 2: Convert Construction Stations to Milepoint Measurements**

The team should complete the station to milepoint spreadsheet tying construction plans to inventoried milepoints. The milepoints should be expressed in three decimals, rounding the extraneous decimals.

The construction plans are drafted using "stations." Station numbers record measurements, with distances listed as "XX + XX.XX," with the digits to the left of the plus sign representing one-hundred-foot intervals (for example, "9" or "09" would represent 900 feet), and the digits to the right representing feet. For example, a "station" of 9 + 10.50 would represent 900 feet plus 10.50 feet, or a total distance of 910.50 feet. Convert the construction plan stationing to feet ( $9 + 10.5 = 910.5$  ft), then either divide the result by 5280 ft/mi or multiply by 0.000189 mi/ft to convert the result to a milepoint.

#### **Step 3: Reconcile Milepoint Differences using Appropriate Tolerances**

Before updating the RCI database, the team should reconcile the field-collected milepoints against the currently recorded milepoints to see if they are within tolerance. If the measurement of any physical feature milepoint differs from the record in an amount greater than the applicable standard or historical record, additional measurement may be necessary.

#### *Tolerances*

If the difference between field collected data and RCI recorded data is within the tolerance, as prescribed below, no change to the RCI data is required.

- Tolerance for milepoint of feature changes—0.010 mile or 53 feet.

- Tolerance for ending mile point—0.010 mile or 53 feet.
- Tolerances for all Features and Characteristics—Refer to Chapter 7 of this handbook.

#### **Step 4: Submit RCI/LRS Package**

If the ending milepoint falls outside of the appropriate tolerances, determine whether the roadway ID should be shortened or lengthened. Submit an RCI/LRS package to TDA Office, as described in the RCI/LRS Package Process (refer to Chapter 6).

#### **Step 5: Enter RCI Data**

The team then updates or enters the RCI data starting with Feature 251 (Intersections), followed by administrative features and physical/geometric features. After completing the data entry, the team should run the RCI DART Edit reports to make sure that there are no consistency errors (e.g., overlaps in milepoints, missing information, conflicting data). If errors are present, the team should correct and rerun the edits.

It should be noted that the RCI DART Edit reports do not verify any field measured dimensional accuracy.

#### **Step 6: Produce and Distribute SLD**

After the RCI data has been entered, an SLD should be prepared using the SLD Diagrammer at: <http://webapp02.dot.state.fl.us/straightlinediagrammer>. Upload the file using the SLO application at: <https://slo.dot.state.fl.us/>.

Upon completion, download the DXF and PDF files. Import the DXF file into MicroStation or Adobe Illustrator to enhance the SLD. Update the SLD Inventory Blocks as indicated in Table 4.3.

**TABLE 4.3 | UPDATE SLD INVENTORY BLOCK**

SLD INVENTORY	5 YR INV	SLD REV	Interim Revisions			
			BMP	EMP	INV	SLD REV
DATE	08/18/2012	12/12/2013	5.384	6.985	04/17/13	04/25/2013
BY	AHJ	CFS	AFE	AFE	AFE	AFE

#### **Step 7: Produce County Key Sheet**

Use the County Key Sheet application to produce the required county key sheet(s), if applicable. Upload the file using the SLO application at: <https://slo.dot.state.fl.us/>.

#### **Step 8: Update RITA**

After the edits have been run and all errors have been reconciled, update the five-year RCI and/or three-year HPMS tracking database (RITA). This update should include the date of the actual field inventory and the data entry.

#### **Step 9: Notify Required Offices**

Notify the designated District Offices and TDA Office of the new SLD and Key Sheet(s), if applicable.



## 4.3 Data Collection Process by Roadway Inventory Type

Table 4.4 summarizes the various steps involved in the data collection process for roadway inventory types. This section also provides detailed instructions for each roadway inventory type.

**TABLE 4.4 | DATA COLLECTION PROCESS FOR ROADWAY INVENTORY TYPES**

Steps	New Construction/ Pending Roadways	Active On the SHS	Active Exclusive	Active Off the SHS	Local Roads	Managed Lanes	HPMS Samples
<b>Pre-Inventory</b>							
Step 1: Generate an Inventory Schedule	●	●	●	●	●	●	●
Step 2: Develop a Detailed Plan for Data Collection	●	●	●	●	●	●	●
Step 3: Collect and Review Existing/Historical Data	●	●	●	●	●	●	●
Step 4: Verify Administrative Data	●	●	●	●	●	●	●
Step 5: Complete Equipment and Document Checklist	●	●	●	●	●	●	●
Step 6: Complete Vehicle Safety Inspection Checklist	●	●	●	●	●	●	●
Step 7: Calibrate the Distance Measuring Instruments	●	●	●	●	●	●	●
<b>Field Inventory</b>							
Step 1: Collect Required Data in the Field	●	●	●	●	●	●	●
<b>Post-Inventory</b>							
Step 1: Gather data from Construction Plans	●	●	●	●	●	●	
Step 2: Convert Construction Stations to Milepoints	●	●	●	●	●	●	
Step 3: Reconcile Milepoint Differences using Tolerances	●	●	●	●	●	●	
Step 4: Submit RCI/LRS Package	●	● <sup>1</sup>	● <sup>1</sup>	● <sup>1</sup>	● <sup>1</sup>	●	
Step 5: Enter RCI Data	●	●	●	●	●	●	●
Step 6: Produce and Distribute SLD		●					
Step 7: Produce County Key Sheet		●					
Step 8: Update RITA	●	●	●	●	● <sup>2</sup>	●	●
Step 9: Notify Required Offices	●	●	●	●	●	●	

<sup>1</sup> indicates this step is required only if applicable.

<sup>2</sup> Local Roads with FM Projects are not currently tracked in RITA. Local Roads that have an overall status of 09-ACTIVE OFF THE SHS and have a functional classification of 09-RURAL LOCAL or 19-URBAN LOCAL, and have either a SIS designation, a bridge, or a railroad crossing are tracked in RITA.

### 4.3.1 Data Collection Process for New Construction/Pending Roadway Inventory

#### Data Collection Steps

##### *Pre-Inventory*

- Step 1: Generate an Inventory Schedule.
- Step 2: Develop a Detailed Plan for Data Collection.
- Step 3: Collect and Review Existing/Historical Data.
- Step 4: Verify Administrative Data.
- Step 5: Complete Equipment and Document Checklist.
- Step 6: Complete Vehicle Safety Inspection Checklist.
- Step 7: Calibrate the Distance Measuring Instruments.

##### *Field Inventory*

- Step 1: Collect Required Data in the Field.

##### *Post-Inventory*

- Step 1: Gather data from Construction Plans.
- Step 2: Convert Construction Stations to Milepoints.
- Step 3: Reconcile Milepoint Differences using Tolerances.
- Step 4: Submit RCI/LRS Package.
- Step 5: Enter RCI Data.
- Step 6: N/A
- Step 7: N/A
- Step 8: Update RITA.
- Step 9: Notify Required Offices—TDA Office.

#### Pending Roadways (not in Database)

An impending construction/realignment requires a collection of administrative data to facilitate the creation of a roadway ID number in RCI. Pending roadways are not required and are not included in the LRS. Only existing routes are displayed on official maps.

Once the District Secretary approves the SHS mileage addition or deletion, the District will update the remaining features and characteristics described in the General Interest Roadway Data (GIRD) Procedure Topic No. 525-020-310 and the Transportation System Jurisdiction and Numbering Procedure Topic No. 525-020-010.

#### **New Road Construction (not in Database)**

When a new roadway is to be constructed and no other roadways are involved, the District shall submit an RCI/LRS package to create the new VUD screen with a new roadway ID provided by the District Office. When construction of the new road is complete, the District shall conduct a complete field inventory of the features for the road segment being added. The updated limit description and milepoint information will be used on the addition to the SHS form. These administrative features will be added to the RCI database within 15 calendar days after the field inventory is completed. The remaining information will be added according to the time given in GIRD Procedure Topic No. 525-020-310.

#### **Realignments (not in Database)**

When a realignment occurs, even if the old portion of the road is physically removed, the District shall conduct a complete inventory for the road segment being added and update the limit description and milepoint information documenting the actions taken, including the District Secretary signature form. These administrative features will be added to the RCI database within 15 calendar days. The remaining information will be added according to the timeframe given in GIRD Procedure Topic No. 525-020-310.

Existing HPMS Samples in realignments need to be reviewed by the TDA HPMS Coordinator.

**TABLE 4.5 | ADMINISTRATIVE FEATURES AND CHARACTERISTICS  
REQUIRED FOR NEW CONSTRUCTION AND REALIGNMENTS**

Feature	Characteristic(s)
111	STROADNO, STRDNUM2
112	FAHWYSYS, TRAVLWAY (if NHS)
113	USROUTE, USROUTE2
114	LOCALNAM
121	FUNCLASS
122	OWNAUTH, RDACCESS, TOLLROAD
124	HWYLOCAL, PLACECD, URBAREA, URBSIZE
140	STATEXPT
147	SISFCTPx, SISMPIDx
251	BEGSECNM, ENDSECNM, INTSDIRx, INTSRTPx

## 4.3.2 Data Collection Process for Active On the SHS Inventory

### Data Collection Steps

#### *Pre-Inventory*

- Step 1: Generate an Inventory Schedule.
- Step 2: Develop a Detailed Plan for Data Collection.
- Step 3: Collect and Review Existing/Historical Data.
- Step 4: Verify Administrative Data.
- Step 5: Complete Equipment and Document Checklist.
- Step 6: Complete Vehicle Safety Inspection Checklist.
- Step 7: Calibrate the Distance Measuring Instruments.

#### *Field Inventory*

- Step 1: Collect Required Data in the Field.

#### *Post-Inventory*

- Step 1: Gather data from Construction Plans.
- Step 2: Convert Construction Stations to Milepoints.
- Step 3: Reconcile Milepoint Differences using Tolerances.
- Step 4: Submit RCI/LRS Package (if applicable).
- Step 5: Enter RCI Data.
- Step 6: Produce and Distribute SLD.
- Step 7: Produce County Key Sheet.
- Step 8: Update RITA.
- Step 9: Notify Required Offices—TDA Office.

### Requirements

The Districts can collect RCI information for roadways with the Active On status on the SHS by using the Active On the SHS inventory process. Statewide uniformity relies on guidelines that determine the beginning and ending points of a roadway as outlined in this handbook. When a new state road is built, the District will assign a roadway ID in coordination with the TDA Office.

The GIRD procedure requires each District to inventory every roadway within its region every five years and each HPMS Sample within the District every three years. Districts may choose to perform inventory more than required amount. When a roadway has been under construction and the District receives a final acceptance notification from Central Office or the District Construction Office, the District must perform a re-inventory of a roadway, add or update the RCI database, create and distribute an SLD, create or update a County Section Key Sheet, update RITA, and notify the TDA Office within 90 calendar days of notification as outlined in the GIRD procedure. Performing a re-inventory of a roadway for new construction provides FDOT users with information that reflects the current field conditions of the roadway.

### ***4.3.3 Data Collection Process for Active Exclusive Inventory***

#### **Data Collection Steps**

##### *Pre-Inventory*

- Step 1: Generate an Inventory Schedule.
- Step 2: Develop a Detailed Plan for Data Collection.
- Step 3: Collect and Review Existing/Historical Data.
- Step 4: Verify Administrative Data.
- Step 5: Complete Equipment and Document Checklist.
- Step 6: Complete Vehicle Safety Inspection Checklist.
- Step 7: Calibrate the Distance Measuring Instruments.

##### *Field Inventory*

- Step 1: Collect Required Data in the Field.

##### *Post-Inventory*

- Step 1: Gather data from Construction Plans.
- Step 2: Convert Construction Stations to Milepoints.
- Step 3: Reconcile Milepoint Differences using Tolerances.
- Step 4: Submit RCI/LRS Package (if applicable).
- Step 5: Enter RCI Data.
- Step 6: N/A
- Step 7: N/A
- Step 8: Update RITA.
- Step 9: Notify Required Offices—TDA Office.

## Requirements

The Active Exclusive inventory collects information about ramps, frontage roads, connectors, and other non-mainline roadways. The GIRD requires a five-year inventory cycle for all Active Exclusive facilities associated with state-maintained facilities. Refer to the data collection matrices in Appendix A for details of the characteristics required by urban/rural classification and type of roadway.

### State Road, U.S. Route, and Interstate Numbers on Active Exclusive Roadways

To facilitate route sequencing in RCI and allow GIS and other map sequencing, Districts should include Features 111 and 113 where available. Therefore, to complete a route sequence, Districts should code the associated route numbers in the proper route segment order as it appears geographically along the mainline. This route sequence design aligns frontage roads, ramps, and other similar roadways parallel with the associated mainline. It also allows one-way sub-sections to be placed in parallel with the other appropriate one-way portion of the mainline. By using the milepoint linkages from data based on RCI features, the entire sequencing is automated, and the only manual sequencing is the arrangement of the mainline counties in proper order. This is most critical with roadways entering a county more than once, such as I-10 through Washington and Holmes counties. This method also provides for ramps intersecting ramps, like many of the major directional (non-loop) interchanges. Note that there are many ramps to frontage roads that have ramps to the local highway system. This design provides for the automated designation of reversal sections.

The same coding methodology applies to Active Exclusive roadways located at the interchange of two interstates, such as I-10 and I-75. The feature coding for the Active Exclusive ramps reflects the road number from the mainline with an identical section number (3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup> digits) of the eight-digit roadway ID number. An example of this would be ramp 29180067, where Features 111 and 113 will use I-75/SR 93 from the mainline I-75/SR 93 (29180000) and not I-10/SR 8 from the mainline 29170000.

## 4.3.4 Data Collection Process for Active Off the SHS Inventory

### Data Collection Steps

#### *Pre-Inventory*

- Step 1: Generate an Inventory Schedule.
- Step 2: Develop a Detailed Plan for Data Collection.
- Step 3: Collect and Review Existing/Historical Data.
- Step 4: Verify Administrative Data.
- Step 5: Complete Equipment and Document Checklist.
- Step 6: Complete Vehicle Safety Inspection Checklist.
- Step 7: Calibrate the Distance Measuring Instruments.

#### *Field Inventory*

- Step 1: Collect Required Data in the Field.

### *Post-Inventory*

- Step 1: Gather data from Construction Plans.
- Step 2: Convert Construction Stations to Milepoints.
- Step 3: Reconcile Milepoint Differences using Tolerances.
- Step 4: Submit RCI/LRS Package (if applicable).
- Step 5: Enter RCI Data.
- Step 6: N/A
- Step 7: N/A
- Step 8: Update RITA.
- Step 9: Notify Required Offices—TDA Office.

### **Requirements**

In addition to the roadways on the SHS, the RCI database represents roadways categorized as Active Off the SHS. The District's planning or maintenance offices maintain these roadways identified in GIRD according to their functional classification. Active Off the SHS roadways are important for the planning and programming of roadways that provide connectivity for roadways designated on the National Highway System (NHS), the Strategic Intermodal System (SIS), Scenic Highways, Freight networks, multimodal connections, or connections to bridges that the Department has interest in. Active Off the SHS roadways are also reported to Federal Highway Administration (FHWA) through the HPMS data submission and are used by the Department for safety, and performance analysis. The District collects the RCI information for these city or county roads using the Active Off the SHS inventory process.

Districts should realign off-system roadways using the current realignment process, but Districts should consider certain off-system realignments for the alternate off-system realignment process outlined in Section 5.2.1 of this handbook.

The GIRD procedure requires each District to re-inventory every roadway ID every five years. The inventory matrices in Appendix A list the data required for Active Off the SHS (and Active On the SHS) roadways. These matrices explicitly identify all the required RCI features and characteristics by either their federal functional classification (e.g., SIS, NHS, etc.) or level of interest.

TDA Office does not require the production or maintenance of straight-line diagrams (SLDs) for Active Off the SHS roadways. However, the SLD software can produce SLDs for Active Off the SHS roadways if the District chooses to produce them. Old SLDs may exist for roadways that were once on the SHS and, if available, should be retained for historical purposes.

### **Data Collection for Roadways Functionally Classified as Minor Collector and above**

Roadways functionally classified as minor collectors and above which are also considered Active off the SHS are required to be included in the RCI, LRS, and part of the District's five-year off-system inventory cycle. These roadways are collected in RCI as part of the adjusted Urban Boundary and Functional Classification update



process following every Census for FHWA HPMS reporting purposes. Refer to the Active Off the SHS RCI inventory matrix in the Appendix A of this handbook for the required features and characteristics for all roadways functionally classified as rural minor collector and above.

### ***4.3.5 Data Collection Process for Local Roads Inventory***

#### **Data Collection Steps**

##### *Pre-Inventory*

- Step 1: Generate an Inventory Schedule.
- Step 2: Develop a Detailed Plan for Data Collection.
- Step 3: Collect and Review Existing/Historical Data.
- Step 4: Verify Administrative Data.
- Step 5: Complete Equipment and Document Checklist.
- Step 6: Complete Vehicle Safety Inspection Checklist.
- Step 7: Calibrate the Distance Measuring Instruments.

##### *Field Inventory*

- Step 1: Collect Required Data in the Field.

##### *Post-Inventory*

- Step 1: Gather data from Construction Plans.
- Step 2: Convert Construction Stations to Milepoints.
- Step 3: Reconcile Milepoint Differences using Tolerances.
- Step 4: Submit RCI/LRS Package (if applicable).
- Step 5: Enter RCI Data.
- Step 6: N/A
- Step 7: N/A
- Step 8: Update RITA.
- Step 9: Notify Required Offices—TDA Office.

#### **Requirements**

To improve the management of local roads and provide Districts with choices in their own local road network, the TDA Office has developed criteria to follow when processing local roads for RCI. Local Roads of state and

District interest identify the types of situations and designations which would require an inventory of local roads to establish and maintain in RCI. If the RCI includes either of these types of roads and they do not have a status that excludes field inventory (such as Local Financial Management (FM) projects), they must be part of the District's five-year off-system inventory cycle.

### **Local Roads of State Interest**

Field alignment and data verification is required for local roads of state interest and must be inventoried using conventionally accepted methods unless the road status excludes field inventory. Local roads of state interest include those that are:

- Designated as NHS.
- Designated as SIS.
- Designated as Scenic Highways.
- Contain bridge structures and/or railroad crossings.
- Roadways for which Federal Aid Primary (FAP) data exists in Feature 112.

### **Local Roads of State Interest with NHS or SIS Designation**

Local roads with NHS or SIS designations shall be part of the District's five-year off-system inventory cycle. These roadways will be placed in the RCI database with the field-verified length and created in the LRS with all the applicable data noted in the local roads RCI inventory matrix located in the Appendix A of this handbook.

### **Local Roads with Bridge Structures and/or Railroad Crossings**

Local roads with bridge structures and/or railroad crossings should be part of the District's five-year off-system inventory cycle. Districts should place the entire alignment in the LRS and in the RCI database with the field-verified length and all the applicable data noted in the Local Roads RCI inventory matrix located in the Appendix A of this handbook.

Districts should add only the shortest roadway ID length necessary to represent the extent of these roadways to the LRS. However, when it is possible to establish a link to an active roadway ID, a longer length may be necessary. Districts should use discretion to minimize the number of dangling roadway segments, arcs, or isolated alignments on maps generated using the LRS shapefiles.

Adding alignments to RCI and/or the LRS requires Districts to submit an RCI/LRS package and to coordinate and receive approval from TDA Office.

### **Local Roads of District Interest**

Local roads of District interest are local roads that a District requests to include in the RCI database and LRS (e.g., park roads, minor evacuation routes, and roadways of MPO interest). The data collection and inventory requirements for local roads of District interest can be conducted through research of office resource material (e.g., aerial photographs, LRS, SLDs, or related documentation).

## Local Roads with FM Projects (Work Program Transportation System 16)

Local roads with FM projects that are part of the state funded programs including Small County Road Assistance Program (SCRAP), Small County Outreach Program (SCOP), or County Incentive Grant Program (CIGP) must be part of the District's five-year off-system inventory cycle. Assigning roadway IDs to these alignments helps the Department maintain accurate FM data. Roadway IDs will be assigned for FM projects on roadways off the SHS and the Federal Aid System (coined "off/off" roadways) based on collaboration between the District RCI Staff and the District Work Program Office. Initial data collection and verification for these local roads may be done using aerial photographs or other methods. After adding these alignments to the RCI database, the length and all applicable data must be field verified within 30 days. Refer to the Local Roads RCI inventory matrix located in the Appendix A of this handbook for required data.

Please refer to the Work Program Instructions using the following link for more information: [http://www.dot.state.fl.us/programdevelopmentoffice/Development/WP\\_instructions.shtm](http://www.dot.state.fl.us/programdevelopmentoffice/Development/WP_instructions.shtm). According to the Work Program Instructions:

- All active and future roadway projects are required to have unique roadway ID numbers. Sidewalks, signs, landscaping, and/or signal projects off the roadway do not require roadway ID numbers.
- The Districts are not required to provide roadway IDs for railroads crossing closure/signal upgrade projects.
- For off the SHS/off Federal Aid System projects, roadway ID numbers are required if a project exists. Once these roadway IDs are created, they should be retained in the database.
- The District will use Code 16—local roads with FM projects for the overall status on the VUD screen and in Feature 140—Section Status Exception on these roadways.
- The TDA Office will set up a series of roadway ID numbers with a section number in the 900 series for off the SHS projects. Each distinct project (with a financial item identifier) will have its own subsection number. The approach is like the countywide approach but allows local roads to be uniquely identified and mapped.
- Example: Instead of 10 projects of off-system or local roads having a countywide roadway ID of 55-000-000, each of these roadways would be assigned a roadway ID ranging from 55-900-001 through 55-900-010. This approach allows each to have its own roadway ID in RCI.

A minimum set of data provided by the District Work Program Office will be used to establish FM project information in the RCI database:

- Beginning and ending milepoint information tied to logical termini using the standard RCI convention (i.e., physical points that are easily identified in the field).
- Local name, location map, length, and/or limits of the FM project.
- Number of lanes according to the information provided by the Work Program Office or other requesting office. A default value of two 10-foot lanes will be assigned if information is not available.
- All other applicable data will be collected as noted in the Local Roads RCI inventory matrix located in the Appendix A of this handbook. Local road alignments will be added to the LRS based on collaboration between the District's RCI staff and the District Work Program Office.

- Adding alignments to the RCI and/or the LRS requires an RCI/LRS package, coordination, and approval from the TDA Office.

### **Local Roads Maintained in RCI and the LRS**

The District must use RCI and other available resources to record data for local roads of state or district interest.

RCI and LRS will maintain local roads data. The District will remove any roadway where the entire limit of the roadway ID has an overall status of deleted or inactive from the LRS, since only existing routes are displayed, but the roadway ID must be retained in RCI if there is data coded.

FDOT recommends that the District maintain a hardcopy file of the roadway ID history in its office for future reference. The TDA Office does not recommend deleting any data in RCI. When the overall status in the VUD screen is changed to deleted or inactive, all coded data in RCI will not be included in any reports.

Do not remove the roadway IDs from RCI, nor change the overall status to deleted or inactive on roadways that have existing FAP data coded in Feature 112.

## ***4.3.6 Data Collection Process for Managed Lanes Inventory***

### **Data Collection Steps**

#### *Pre-Inventory*

- Step 1: Generate an Inventory Schedule.
- Step 2: Develop a Detailed Plan for Data Collection.
- Step 3: Collect and Review Existing/Historical Data.
- Step 4: Verify Administrative Data.
- Step 5: Complete Equipment and Document Checklist.
- Step 6: Complete Vehicle Safety Inspection Checklist.
- Step 7: Calibrate the Distance Measuring Instruments.

#### *Field Inventory*

- Step 1: Collect Required Data in the Field.

#### *Post-Inventory*

- Step 1: Gather data from Construction Plans.
- Step 2: Convert Construction Stations to Milepoints.
- Step 3: Reconcile Milepoint Differences using Tolerances.
- Step 4: Submit RCI/LRS Package (if applicable).

- Step 5: Enter RCI Data.
- Step 6: N/A
- Step 7: N/A
- Step 8: Update RITA.
- Step 9: Notify Required Offices—TDA Office.

## Requirements

The Managed Lanes inventory collects information about three types of managed lanes. Refer to Section 5.1.4 of this handbook to determine if the managed lane is a Case A, Case B, or Case C. Chapter 7 of this handbook contains specifics about characteristics and codes.

Check for any HPMS Samples on the mainline where the managed lanes exist. Adding managed lanes to a roadway can impact any existing HPMS samples. Work with the TDA HPMS Coordinator to review existing HPMS Samples.

### 4.3.7 Data Collection Process for HPMS Samples

New HPMS Samples are added by the TDA HPMS Coordinator each year to address sample adequacy issues. HPMS Samples' begin and end points can be adjusted to begin or end at physical locations and any adjustments to sample lengths should be sent to the Central Office HPMS team for approval.

## Data Collection Steps

### *Pre-Inventory*

- Step 1: Generate an Inventory Schedule and run the HPMS Field Inventory Sheet (currently on mainframe).
- Step 2: Develop a Detailed Plan for Data Collection.
- Step 3: Collect and Review Existing/Historical Data.
- Step 4: Verify Administrative Data.
- Step 5: Complete Equipment and Document Checklist.
- Step 6: Complete Vehicle Safety Inspection Checklist.
- Step 7: Calibrate the Distance Measuring Instruments.

### *Field Inventory*

- Step 1: Collect Required Data in the Field.

### *Post-Inventory*

- Step 1: Enter HPMS Data under RCI Features 118 and 119. Refer to Chapter 7 for specific coding requirements for these features.
- Step 2: Update RITA.



# CHAPTER 5

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## CHAPTER 5. RCI PROCEDURES

# 5

This chapter is intended to focus on the management of a roadway ID and the many aspects of data collection procedures. The intent is to give guidance to the Districts to assist in unique road sectioning situations. It describes examples of the actions that are required to be performed to ensure Roadway Characteristics Inventory (RCI) and Linear Referencing System (LRS) data is maintained consistently to reflect field conditions. These procedures have been developed based on historical issues throughout and may not cover all situations. Roadway ID and Roadway Section are used interchangeably in this chapter.

This chapter provides guidance to the Districts to assist in the following data collection situations—adding a new road, editing a road, and retiring a road. Each of these situations is covered in detail including specific unique scenarios.

## 5.1 Adding New Roadways

When adding a new road in RCI, it needs to meet one of the following criteria:

- A planned or completed road construction project.
- A local road is programmed with a Financial Management (FM) project.
- A transferred road from a local entity (as outlined in Section 5.1.3 of this handbook).
- A roadway re-sectioning.

### 5.1.1 New Construction

When a new roadway project is in the planning stage, a roadway ID is assigned in RCI as pending and used by the Financial Management Office and all other Florida Department of Transportation (FDOT) offices to track the project phases from planning to completion of the roadway. Project types requiring a new roadway ID are new construction or realignments. The District RCI Coordinator or the designated staff is responsible for coordinating, assigning, and monitoring roadway ID numbers assigned to their respective managing District. The assignment process of the roadway ID is established in Chapter 3. The roadway section alignment must be coordinated with FDOT Transportation Data and Analytics (TDA) Office to create logical and consistent section alignments in RCI and the LRS. The District RCI Coordinator or the designated staff is required to perform the necessary paperwork to create an RCI/LRS package and provide supporting documentation to create and add the new roadway ID. The District RCI Coordinator will ensure their District stakeholders are coordinated and aware of additions, updates, or modifications to RCI and LRS roadway sections including Planning, Maintenance, Traffic and Engineering Operations, Safety, Modal Offices, Design, Construction and the Office of Work Program and Budget. These stakeholders are important users who use the RCI business data to support the planning, operations, and programming of Florida's multimodal transportation system and assets. The Districts are critical for not only prioritizing and delivering construction projects but also ensuring the RCI business data represents the roadway section field conditions accurately and in a timely manner for state accountability purposes.

#### Active on the State Highway System (SHS)

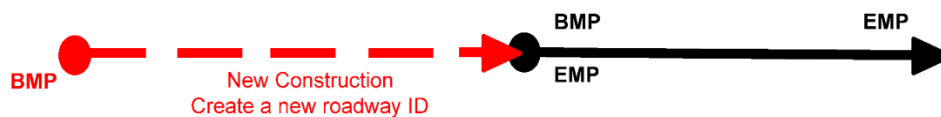
For new construction to be added as an Active On the SHS roadway, a complete field inventory must be done, update RCI data, and SHS mileage addition paperwork must be completed with the District Secretary's signature at the completion of construction or when the roadway is open to traffic. All documents must be submitted to the TDA Office in an RCI/LRS package which will need to be reviewed by the TDA coordinators responsible for maintaining the RCI and LRS reconciliation process. The SHS mileage paperwork will be reviewed by the Multimodal Data System Coordinator for the new mainline roadway ID, and the RCI database will be updated. For specific requirements for adding SHS mileage, please see the Transportation System Jurisdiction and Numbering Procedure, Topic No. 525-020-010. SHS mileage paperwork does not have to be submitted for the addition of Active Off the SHS or Active Exclusive roadways, since their mileage is excluded from the SHS mileage.

## New Construction at Beginning (Zero Milepoint) of an existing Roadway ID Alignment

If a new roadway construction occurs before the zero milepoint of an established roadway, follow the process as indicated below:

- Active On the SHS: a new roadway ID must be assigned for the new section of construction. Follow the Roadway ID assignment process. See Figure 5.1.
- Active Off the SHS: Districts have the option to keep the adjoining roadway ID, establish a new beginning milepoint (BMP) including the new construction and re-inventory the roadway adjusting all features and characteristics of the combined roadways. All Highway Performance Monitoring System (HPMS) Samples that exist need to be reviewed by the TDA HPMS Coordinator as part of this process.

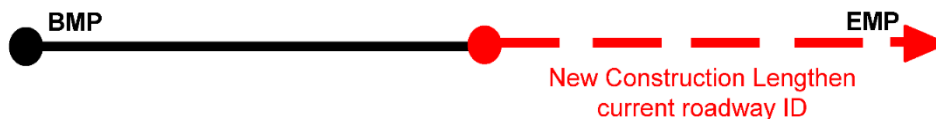
**FIGURE 5.1 | CONSTRUCTION AT THE BEGINNING OF A ROADWAY ID**



## New Construction at Ending of Roadway ID Alignment

If the new roadway construction is at the end of the ending milepoint (EMP), then the roadway ID can be lengthened. An RCI/LRS package must be submitted to lengthen the EMP, and the new construction must be inventoried, adding all features and characteristics to RCI. See Figure 5.2.

**FIGURE 5.2 | CONSTRUCTION AT THE END OF A ROADWAY ID**



## Ramps

If a ramp is new construction, the District RCI Coordinator must assign a roadway ID following the RCI/LRS package instructions. If the ramp is being reconstructed and still serves the same purpose for flow of traffic, the same roadway ID can be used, even if the location of the zero milepoint for the ramp has been changed or moved.

### 5.1.2 Pending Roadways

#### Pending Status for New Roadways, Realigned Segments or Future Road Transfers

When a new roadway, realignment or an anticipated roadway transfer is planned, a new roadway ID number must be created with an overall status of Pending for the following types of roadways: Active On the SHS, Active Off the SHS, and Active Exclusive as outlined in the roadway ID numbering process outlined in Chapter 3. Pending roadways or future roadway projects require roadway ID numbers with an estimated length in RCI as identified in Chapter 19 of the Work Program Instructions. Pending roadways are not included in the TDA Office's LRS data; only existing roadways that are open to traffic are displayed on official FDOT maps. HPMS Samples on roadways with realignments need to be reviewed by the TDA HPMS Coordinator.

Although the segments are pending, an effort to populate all of the feature data is needed for HPMS reporting purposes of the National Highway System (NHS). Even if only partial data is available, it should be coded in RCI.

### **Roadway ID Governance**

For anticipated roadway jurisdiction transfers or additions to the SHS, a roadway ID number must be created using the roadway ID numbering system process outlined in Chapter 3. An RCI/LRS package must be submitted to create the new roadway ID number in RCI with a Pending status. Districts must perform the road jurisdiction transfer process as listed in the Transportation System Jurisdiction and Numbering Handbook. The District must coordinate with Central Office to ensure all approvals and signatures have been completed on all roadway transfers as well as to ensure the RCI and the LRS data represent the associated documents and the road jurisdiction transfer process requirements are met. Once the roadway jurisdiction transfer negotiation documents are signed and become effective, the District must follow the processes to coordinate and finalize the transfer listed in the Transportation System Jurisdiction and Numbering Handbook. The Districts will submit an RCI/LRS package along with the transfer agreement package to the TDA Office for processing.

The section length of the Pending roadway may be estimated from conceptual plans or construction plans. The estimated EMP may be rounded to the nearest whole mile, e.g., if the conceptual plans end at approximately 4.650 then the EMP can be rounded to 5.000. All administrative feature data required for pending roadways listed in the Pending Roadway matrix located in the Appendix A of this handbook should be coded once information is established.

### **Populating RCI Data for New Roadways**

After construction is completed for a new road, final contract acceptance notifications are provided by the Notification of Contract Status Report System which is reviewed by the Districts and the TDA Office. The TDA Office receives these notifications and provides the District with a list of projects that received a Final Acceptance status. The District will update and track the roadway record in Roadway Inventory Tracking Application (RITA). When the road is open to traffic, the roadway must be field inventoried to obtain the driven section length for the roadway ID BMP and EMP, and all the appropriate information and characteristics need to be updated in RCI. The District will submit an RCI/LRS package to update the V/U/D screen to change the overall status to active and the correct field measured EMP.

All countywide roadway IDs' must be retained permanently in RCI, they are used as a place holder for the county key sheet in the SLO application. Examples of countywide roadway IDs are CC000000 for District counties and CC479999 for Turnpike counties where "CC" stands for county code.

### **Pending Roadway Management**

Pending roadways in RCI are to be reviewed annually by the District. If a roadway project or a transfer has been canceled, the pending roadway should be removed from the RCI database. Districts are required to submit an RCI/LRS package by the biannual cutoff deadline of June 15<sup>th</sup> and December 15<sup>th</sup>. To request an exclusion for the District Quality Evaluation (DQE) grading period, Districts must submit a request to exclude pending roadways on the TDA Office's SharePoint site by the appropriate deadline.



### 5.1.3 Road Jurisdiction Transfers (RJT)

Road jurisdiction transfers are governed by Florida Statute [§ 335.0415](#) and the Transportation System Jurisdiction and Numbering Procedure, Topic No. 525-020-010 as outlined in the Transportation System Jurisdiction and Numbering Handbook on the process of transferring the ownership of roadways to or from the city, county or other entity. Only the aspects of transfers that directly affect RCI are discussed in this section.

#### Active Off the SHS to Become Active On the SHS

When an Active Off the SHS roadway is transferred onto the SHS, it will keep the original roadway ID. The District must submit an RCI/LRS package to FDOT TDA Office for the following:

- Create a new state road number.
- Request V/U/D screen updates:
  - Change overall status to Active On the SHS.
  - Update overall description with the newly assigned State Road Number.

When the package is complete, the District will update all necessary Features and Characteristics in the RCI database that apply to the transfer. The overall status and roadway ID or state road number of the roadway will not be changed in RCI until the transfer agreement becomes effective, i.e., either the date the FDOT Secretary signs the transfer agreement or a later date as specified in the transfer agreement.

The District must **update required administrative features within 15 calendar days** of the establishment of, or change to, the actual value. Reference the General Interest Roadway Data (GIRD) Procedure, Topic No. 52-020-310, for the timeliness standard and list of required features.

If the roadway was not previously in RCI, then a new roadway ID should be assigned an overall status of Pending since it is anticipated to be added to the SHS. The Pending roadway should be populated with all known or anticipated administrative features. The District should coordinate with the TDA Transportation Monitoring Program division so a traffic site can be assigned, and counts can be scheduled for the year the transfer will be effective. The District should also coordinate with the Office of Maintenance so the appropriate funds can be encumbered for the year the transfer will be effective.

Once the transfer agreement becomes effective, follow the guidelines outlined in the Transportation System Jurisdiction and Numbering Handbook. District has to coordinate with TDA Office to ensure that the overall status, governmental jurisdiction, overall description, system, or any other pertinent fields on the V/U/D Roadway ID screen and other secured RCI features are updated to reflect the transfer agreement. Feature 140 OSDATE should be coded with the transfer effective date to reflect when the mileage is officially added to the SHS.

The District will update RCI, produce and distribute Straight Line Diagrams (SLDs) and corresponding county section number key sheets as prescribed by the GIRD Procedure, Topic No. 525-020-310. Since the update is due to Road Jurisdiction Transfers (RJT), the District must **update the required RCI features within 90 calendar days and produce SLDs and county section number key sheets within 120 calendar days** of the transfer effective date. A new RITA record is automatically generated for the Districts to record the new roadway information.

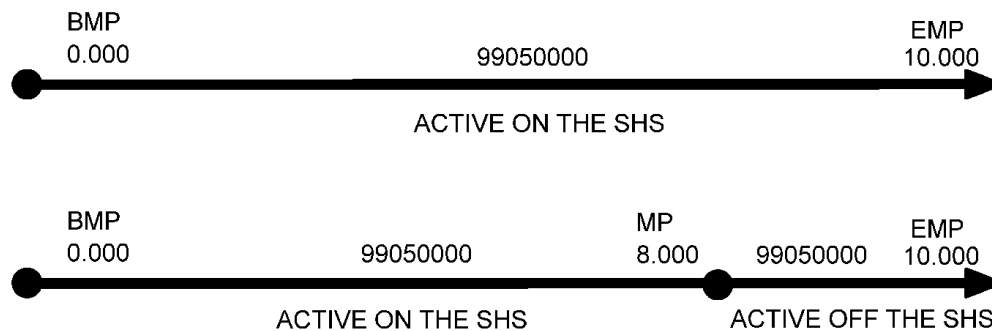
## New Construction or Removal of a State Road

When the Department constructs a new state road, or realigns an existing state road, or physically removes a state road, the District Secretary must approve the addition or deletion of the segments. The data collection requirements as indicated in Chapter 4 would apply, triggered by the date of the District Secretary's approval.

## Transferring a Segment of a Roadway ID

- When a segment of a Roadway ID is transferred to a local agency or another District or the Turnpike, the original roadway ID is retained, and the District must submit an RCI/LRS package for the following:
  - Request V/U/D screen updates:
    - › Change overall status to Active with Combination.
    - › Change overall description to address any name modification. When the package is complete, the District will update all necessary Features and Characteristics in the RCI database that apply to the transfer.
- Utilize the same beginning and ending points of the roadway ID divided in Feature 140 as follows:
  - Portion of the roadway ID transferred to the local agency—Code as Active Off the SHS.
  - Portion of the roadway ID maintained by FDOT—Code as Active On the SHS.

**FIGURE 5.3 | TRANSFERRING A SEGMENT OF A ROADWAY ID**



*Scenario:* Roadway ID 99050000 is 10.000 miles long, a segment from MP 8.000 to 10.000 was transferred to a city. The original roadway ID should be retained, utilizing the same beginning and ending points with the roadway segment divided in Feature 140 as follows: Milepoints 0.000 to 8.000 shall be coded as Active On the SHS, and milepoints 8.000 to 10.000 shall be coded as Active Off the SHS.

## HPMS Samples on Active On and Active Off roadways

The Federal Highway Administration (FHWA) requires FDOT to conduct data collection for the HPMS. Statistically based samples are required by Functional Classification, Urban Area, Urban Size, and Traffic Volume Ranges, for short this is referred to as a “Strata.” HPMS sample criteria does not bifurcate based on roadway status; the samples are selected for both on and off the SHS. Additionally, the sample length is determined by feature changes on the roadway that impact the data used in the Table of Potential Samples (TOPS). The TOPS is the strata and the through lanes. These data items must be homogeneous within the sample.

Every year the sample panel is reviewed to eliminate over or under sampling for each stratum. This is accomplished by adding or deleting samples randomly to maintain a statistically representative sample panel. The TDA HPMS Coordinator runs a sample adequacy report annually to determine what strata are over- or under-sampled. Based on this report, the TDA HPMS Coordinator randomly selects the samples to be added to the under-sampled strata. For deleting any samples from the over-sampled strata, the TDA HPMS Coordinator provides a sample reduction plan to FHWA for approval. Samples can also be deleted when a roadway is completely realigned or when its functional classification is changed to a local road. The TDA HPMS Coordinator corresponds by email with the Districts to schedule inventory for the additional new samples and deletion of old samples from Feature 118 in RCI.

#### ***5.1.4 Realignment of a State Road Involving a Road Jurisdiction Transfer Resulting from New Construction***

This example illustrates a realignment and road jurisdiction transfer of a state facility.

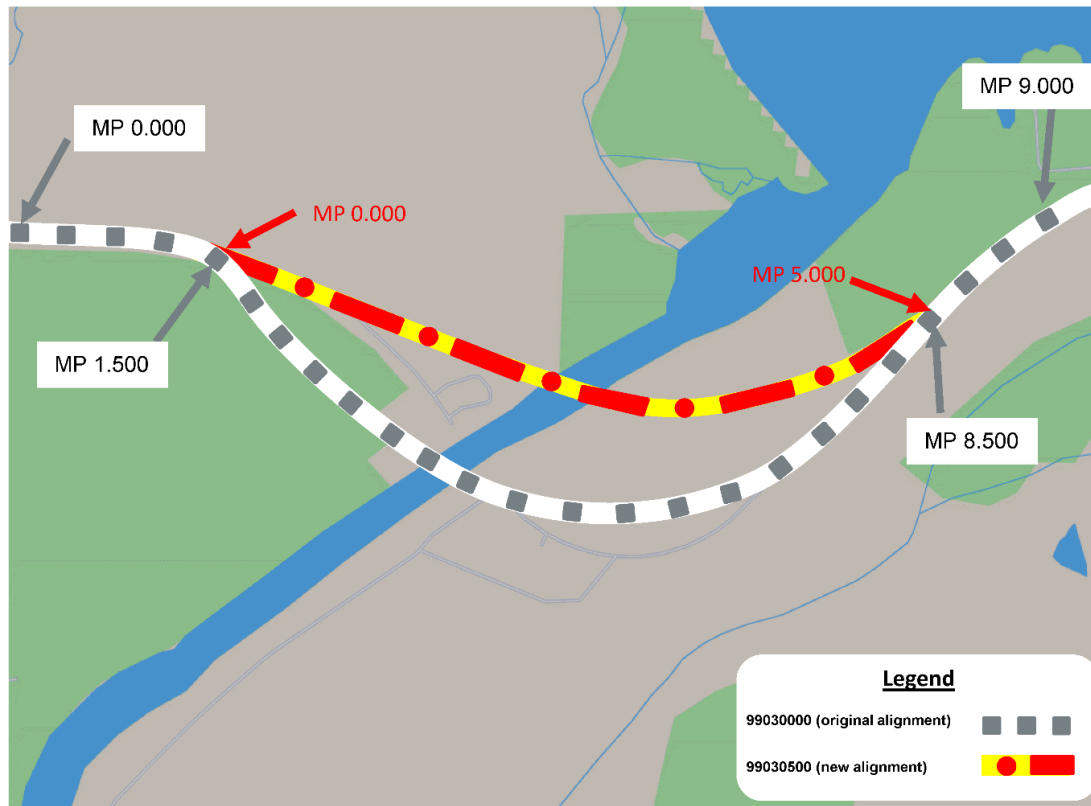
A new SHS bridge alignment was built replacing an old bridge alignment. The old bridge was transferred off the SHS.

- Roadway ID 99030000 from MP 1.500 to MP 8.500 was the original bridge that was realigned.
- Roadway ID 99030500 from MP 0.000 to MP 5.000 is a new roadway ID assigned to the new bridge alignment. A subsection number of the original roadway ID is used. Note: the new bridge of 5.000 miles is shorter than the old bridge of 7.000 miles.
- The state road number is transferred to the new bridge alignment. The old alignment is removed from the SHS.

Appropriate RCI administrative features should be updated according to the requirements and timeliness standards of the Transportation System Jurisdiction and Numbering Procedure, Topic No. 525-020-010 and GIRD Procedure, Topic No. 525-020-310. The FDOT Secretary's signature/approval determines the date the timeliness requirements start for the transferred bridge, and the timeliness for the new bridge data.

- Districts must update RCI physical features and characteristics, SLDs, and county section number key sheets according to the requirements and timeliness standards of the GIRD Procedure, Topic No. 525-020-310. District offices responsible for coordinating the roadway ID section changes must review all Planning Features and Characteristics, coordinate with Office of Maintenance and Traffic Engineering and Operations Office, and notify other District stakeholders. Running validation edits is a highly suggested practice to perform which provides a list of data that needs to be collected on the appropriate sections.

**FIGURE 5.4 | REALIGNMENT OF A STATE ROAD INVOLVING A ROAD JURISDICTION TRANSFER RESULTING FROM NEW CONSTRUCTION**



#### Roadway ID 99030000 (Original Bridge Alignment)

##### Feature 111—State Road System

- All state-owned roads should have a State Road number. Coordinate with the TDA Multimodal Data System Coordinator for additional guidance. Code new multiple milepoint breaks for each state road number designation.
  - Code MP 0.000 to MP 1.500, as the original “SR” state road number.
  - Code MP 1.500 to MP 8.500, to “OS” old state road number since the roadway was transferred from the SHS.
  - Code MP 8.500 to MP 9.000, as the original “SR” state road number.
- Refer to Chapter 7 for the coding requirements of Feature 111.

Roadway ID: <a href="#">99030000</a>	Man-Dist: 00	Geo-Dist: 00	Country: TEST	Beg. MP: 0.000	End. MP: 9.000	Net Length: 9.000	Overall Status: ACTIVE WITH COMBINATION
Description: EXAMPLE 3 ROAD						<a href="#">VideoLog</a>	<a href="#">Enterprise GIS</a>
<b>Feature 111 - STATE ROAD SYSTEM</b>				<b>LENGTH/NON-INTERLOCKING</b>			
Beg.MP	End.MP	Characteristic	Value	Unit	Side	Char. Updated	
0.000	0.000	<a href="#">STATE ROAD NUMBER</a>	SR 12	ID	C	KNRSHTL 05/29/2007	
1.500	8.500	<a href="#">STATE ROAD NUMBER</a>	CR 12	ID	C	KNRSHTL 05/29/2007	
8.500	9.500	<a href="#">STATE ROAD NUMBER</a>	SR 12	ID	C	KNRSHTL 05/29/2007	

### *Feature 138—Roadway Realignment*

- Feature 138 is coded on the old roadway alignment. Feature 138 is an interlocking feature that populates Feature 139 (on new roadway alignment) if all the characteristics are coded using the same BMP and EMP. Refer to Chapter 7 for the coding requirements of Feature 138.
  - Code BMP 1.500 to EMP 8.500 for all the characteristics of Feature 138, which is the limit of the old bridge alignment.
  - Code NALIGNDT, which is the date the realignment was officially deleted off the SHS as the date signed/approved by the District Secretary.
  - Code 99030500 for NALIGNID, which is the new alignment roadway ID.
  - Code MP 0.000 for NALNBGPT, which is the new alignment BMP.
  - Code MP 5.000 for NALNENPT, which is the new alignment EMP.

### *Feature 140—Section Status Exception*

- Code multiple milepoint breaks for each section status.
  - Code 02 (Active On the SHS) from MP 0.000 to MP 1.500, limits of the old alignment that was not realigned nor transferred.
  - Code 09 (Active Off the SHS) from MP 1.500 to MP 8.500, limits of the new roadway alignment.
    - › Code OSDATE, date when the old roadway alignment mileage was officially deleted from the SHS when signed/approved by the State Secretary.
    - › All other original features or characteristics data coded on the transferred portion should NOT be deleted nor removed from RCI.
    - › The data should be retained because the roadway still exists as Active Off the SHS.
  - Code 02 (Active On the SHS) from MP 8.500 to MP 9.000, limits of the old alignment that was not realigned nor transferred.
- Refer to Chapter 7 for the coding requirements of Feature 140.

Roadway ID:	Man-Dist:	Geo-Dist:	Country:	Beg. MP:	End. MP:	Net Length:	Overall Status:
<a href="#">99030000</a>	00	00	TEST	0.000	9.000	9.000	ACTIVE WITH COMBINATION
Description: EXAMPLE 3 ROAD						<a href="#">VideoLog</a>	<a href="#">Enterprise GIS</a>
Feature 140 - SECTION STATUS EXCEPTION							
Beg.MP	End.MP	Characteristic	Value	Unit	Side	LENGTH/NON-INTERLOCKING Char. Updated	
0.000	1.500	<a href="#">ON OR OFF-SYSTEM DATE</a>	4/15/1963	DA	C	KNRSHTL 05/25/2007	
		<a href="#">SECTION STATUS EXCEPTION</a>	02 - ACTIVE ON THE SHS	CD	C	KNRSHTL 05/25/2007	
1.500	8.500	<a href="#">ON OR OFF-SYSTEM DATE</a>	5/1/2007	DA	C	KNRSHTL 05/25/2007	
		<a href="#">SECTION STATUS EXCEPTION</a>	09 - ACTIVE OFF THE SHS	CD	C	KNRSHTL 05/29/2007	
8.500	9.000	<a href="#">ON OR OFF-SYSTEM DATE</a>	4/15/1963	DA	C	KNRSHTL 05/29/2007	
		<a href="#">SECTION STATUS EXCEPTION</a>	02 - ACTIVE ON THE SHS	CD	C	KNRSHTL 05/29/2007	

### *View/Update/Delete (V/U/D) Screen*

Since the roadway has multiple section statuses, the overall status is changed to “Active with Combination” for the roadway ID.

- Any changes to the V/U/D screen require a submittal of an RCI/LRS package to TDA Office.
- Overall Descriptions may be submitted via an email request. Multiple items should be submitted as a spreadsheet attachment.
- Refer to Chapter 6 for the RCI/LRS package process and requirements.

### **Roadway ID 99030500 (New Bridge Alignment)**

All Planning physical features and characteristics must be collected and coded for the new roadway alignment. Coordinate with the other offices to have their RCI features collected and coded for the new roadway alignment.

### *Feature 111—State Road System*

- MP 0.000 to MP 0.500 should be coded with state road number designation of the old alignment, since the state road number designation was transferred to the new bridge alignment.
- Refer to Chapter 7 for coding requirements of Feature 111.

Roadway ID:	Man-Dist:	Geo-Dist:	Country:	Beg. MP:	End. MP:	Net Length:	Overall Status:	
<a href="#">99030500</a>	00	00	TEST	0.000	0.500	0.500	ACTIVE WITH COMBINATION	
Description: EXAMPLE 3 NEW ALIGNMENT						<a href="#">VideoLog</a>	<a href="#">Enterprise GIS</a>	
Feature 111 - STATE ROAD SYSTEM								
Beg.MP	End.MP	Characteristic			Value	Unit	Side	Char. Updated
0.000	0.500	STATE ROAD NUMBER			SR 12	ID	C	KNRSHTL 05/29/2007

### *Feature 138—Roadway Realignment*

No coding required.

- Feature 138 is coded under old alignment and will automatically generate Feature 139 on the new roadway alignment.

### *Feature 139—New Roadway Alignment*

No coding required.

- Automatically generated on the new roadway alignment roadway ID 99030500.

- Automatically generated if Feature 138 is correctly coded on the old roadway alignment roadway ID 99030000.
- The information will be a mirror of Feature 138 of the old roadway alignment roadway ID 99030000.

#### *Feature 140—Section Status Exception*

- Code OSDATE—the date the new alignment mileage was officially added to the SHS system as signed/approved by the District Secretary.
- Code 09 (Active Off the SHS) from MP 0.000 to MP 0.500, the limits of the new roadway alignment.
- Refer to Chapter 7 for the coding requirements of Feature 140.

Roadway ID:	Man-Dist:	Geo-Dist:	Country:	Beg. MP:	End. MP:	Net Length:	Overall Status:
<a href="#">99030500</a>	00	00	TEST	0.000	0.500	0.500	ACTIVE WITH COMBINATION
Description: EXAMPLE 3 NEW ALIGNMENT						<a href="#">VideoLog</a>	<a href="#">Enterprise GIS</a>
<b>Feature 140 - SECTION STATUS EXCEPTION</b>							
Beg.MP	End.MP	Characteristic	Value	Unit	Side	LENGTH/NON-INTERLOCKING	
0.000	1.500	<a href="#">ON OR OFF-SYSTEM DATE</a>	05/01/2007	DA	C	KNRSHTL 05/25/2007	
		<a href="#">SECTION STATUS EXCEPTION</a>	09 - ACTIVE OFF THE SHS	CD	C	KNRSHTL 05/25/2007	

### 5.1.5 Managed Lanes

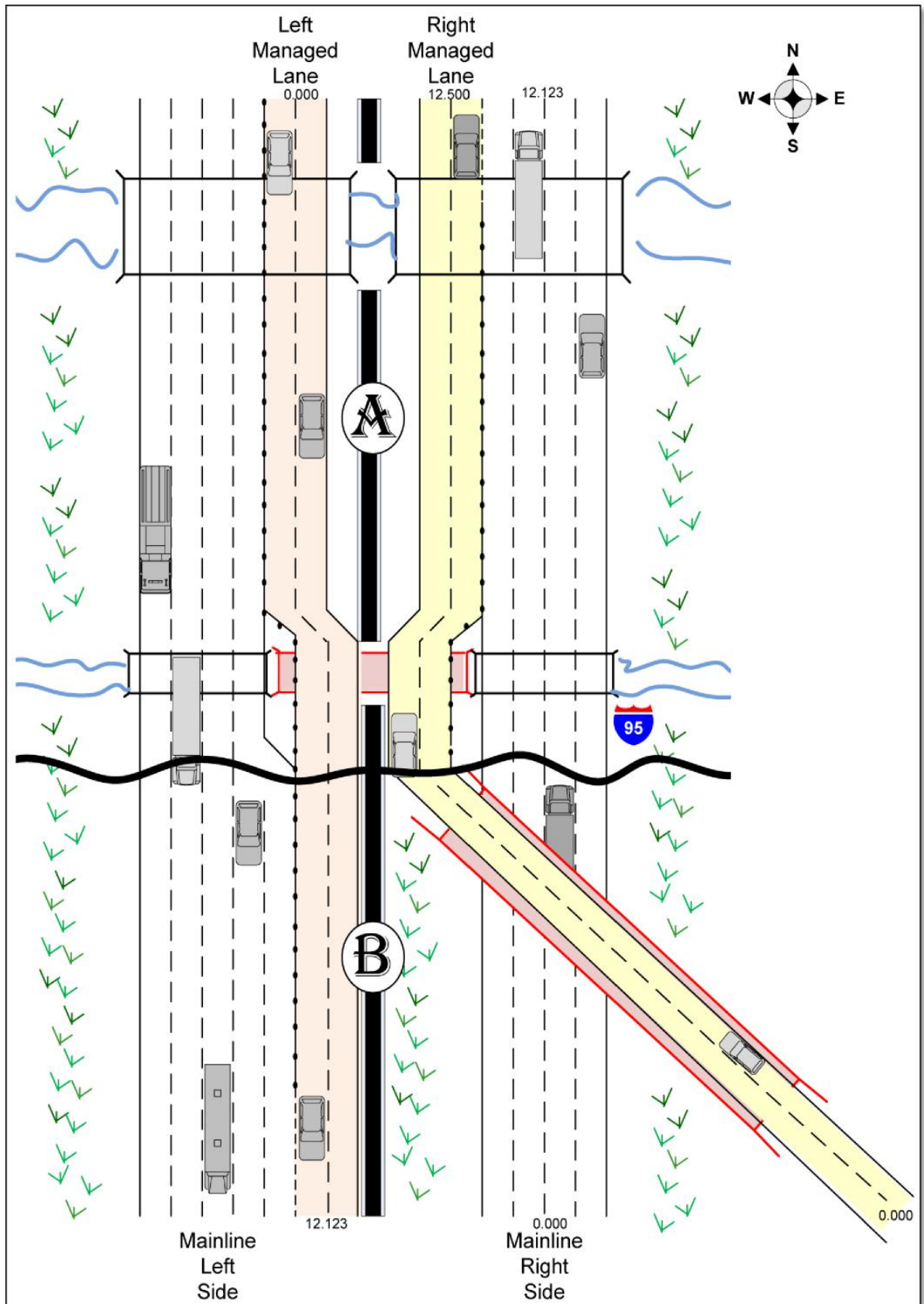
Managed lanes refer to toll lanes that are in conjunction with mainline facilities that allow for variable situations depending on traffic volume and roadway conditions. An example is the 95 Express. Another name for managed lanes is high occupancy toll (HOT) lanes.

Each direction of travel of the managed lanes will be assigned a roadway ID. The roadway ID number of the managed lane will match the associated mainline section number and the sub-section number will be in the 900 series. The managed lanes will be coded as Active Exclusive under the inventory type and as managed lanes under the road type. For inventory requirements, reference the Managed Lanes RCI Inventory sheet in the Appendix A of this handbook.

Managed lanes will not add centerline miles to the SHS, but they will add lane miles and vehicle miles traveled (VMT). The lane mileage will provide for proper funding to the Office of Maintenance. Managed lanes also have LRS alignments.

SLDs are required for managed lanes. Display Section Q in the SLD Diagrammer—Managed Lanes on the mainline SLD to display the limits of the associated managed lanes.

**FIGURE 5.5 | MANAGED LANES**





## Coding Managed Lanes in RCI (Effective April 2013)

- Assign a roadway ID to each travel way.
- Inventory each roadway ID in the direction it travels, i.e., the ascending managed lanes are inventoried from south to north, and the descending managed lanes are inventoried from north to south.
- The two roadway IDs for the managed lanes can be of unequal length.
- The managed lanes will not add any mileage to the interstate system or SHS.
- The VMT for the managed lanes will increase the interstate total VMT.
- The lanes for the managed lanes will be added to the mainline total number of lanes for reporting purposes.
- Code Feature 142—Managed Lanes. Characteristics a-i are coded for the mainline roadway. Characteristics j-l are coded for each of the managed lane roadways.
  - a. RMLRDWY—Right Managed Lane Roadway ID
  - b. RMLBMP—Right Managed Lane Begin Milepoint
  - c. RMLEMP—Right Managed Lane End Milepoint
  - d. LMLRDWY—Left Managed Lane Roadway ID
  - e. LMLBMP—Left Managed Lane Begin Milepoint
  - f. LMLEMP—Left Managed Lane End Milepoint
  - g. CMLRDWY—Composite Managed Lane Roadway ID
  - h. CMLBMP—Composite Managed Lane Begin Milepoint
  - i. CMLEMP—Composite Managed Lane End Milepoint
  - j. MAINRDWY—Roadway ID for the associated mainline highway
  - k. MAINBMP—Begin Milepoint of the associated mainline highway
  - l. MAINEMP—End Milepoint of the associated mainline highway

- MLTRFSEP Managed Lane Separator, is coded under Feature 214—Outside Shoulders. It is only coded for managed lane roadways. The MLTRFSEP codes are:
  - **0:** None
  - **1:** Flexible Posts
  - **2:** Guardrail
  - **3:** Barrier Wall
  - **4:** Lawn
- Where characteristics under Feature 119 and Feature 212 break in relationship to the beginning/ending location of a managed lane, ensure that the milepoint limits for these characteristics exactly match the BMP/EMP of the managed lane coded under Feature 142.

## **CASE A**

Locations where the managed lanes run adjacent to the Interstate lanes.

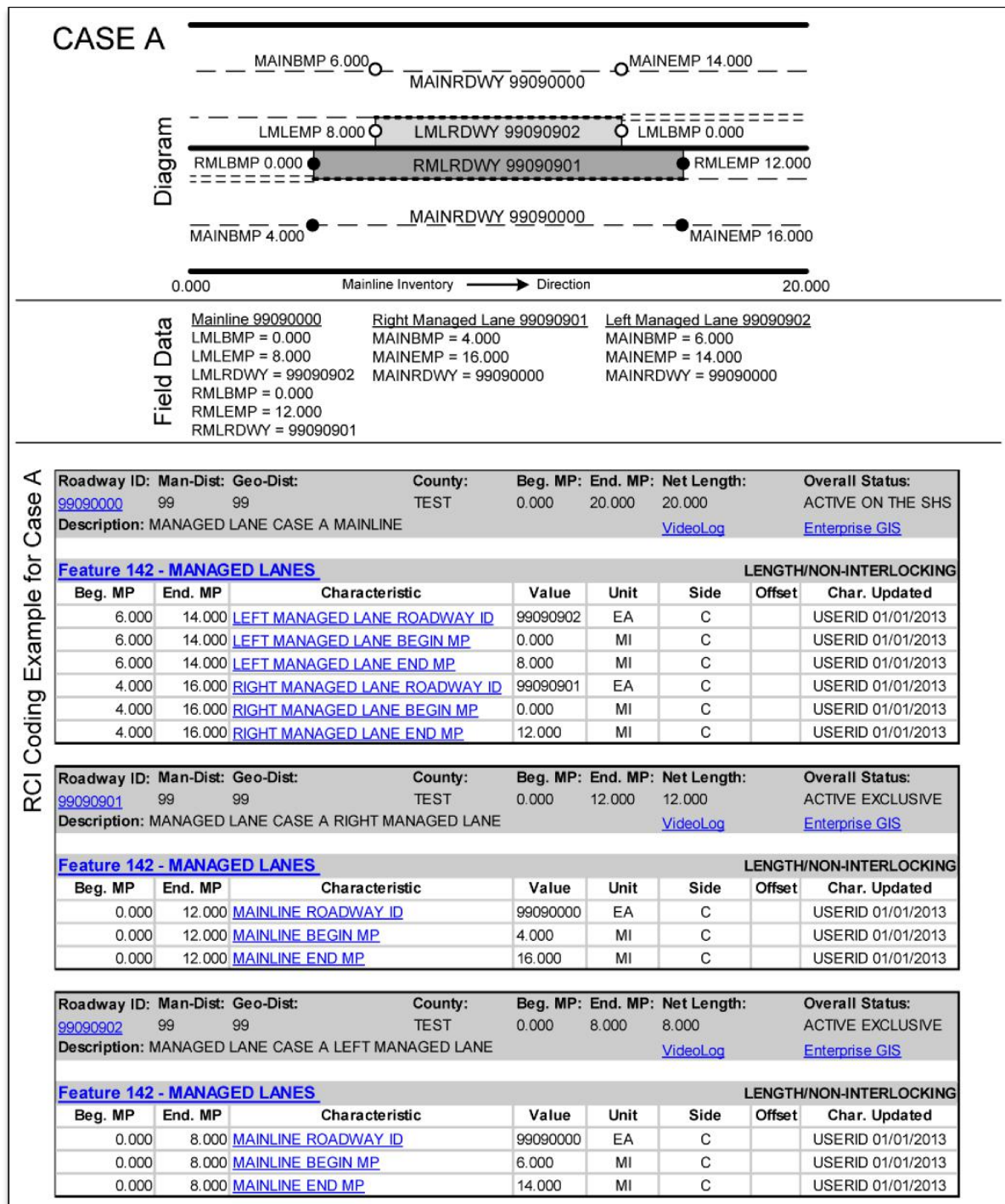
### *Mainline*

- There is no median or inside shoulder between the mainline and the managed lane of the same direction. Therefore, code Feature 215—Medians—RDMEDIAN as code 50—Non-counted Managed Lane.
  - Do not code Feature 219—Inside Shoulder.

### *Managed Lanes*

- The delineator (MLTRFSEP) is between the free and tolled lanes. MLTRFSEP will only be coded once, and it will be assigned to the managed lanes' roadway ID.
- The type and width of the inside shoulders will be coded.
- Half of the median width will be coded for each managed lane roadway.
- In locations where the managed lane shares a bridge with the mainline, the bridge number is also coded on the managed lane's roadway ID.
- In locations where the NB and SB managed lanes share a bridge, code the bridge number on each of the managed lanes roadway IDs.
- Code any tolling data that applies in Feature 122—Facility Classification and in Feature 119—HPMS Universe.
- Code lanes and surface width under Feature 212—Through Lanes. Do not include managed lanes in the count for NOLNES on the mainline roadway ID.

FIGURE 5.6 | MANAGED LANES—CASE A



## CASE B

Locations where one managed lane occupies a new alignment.

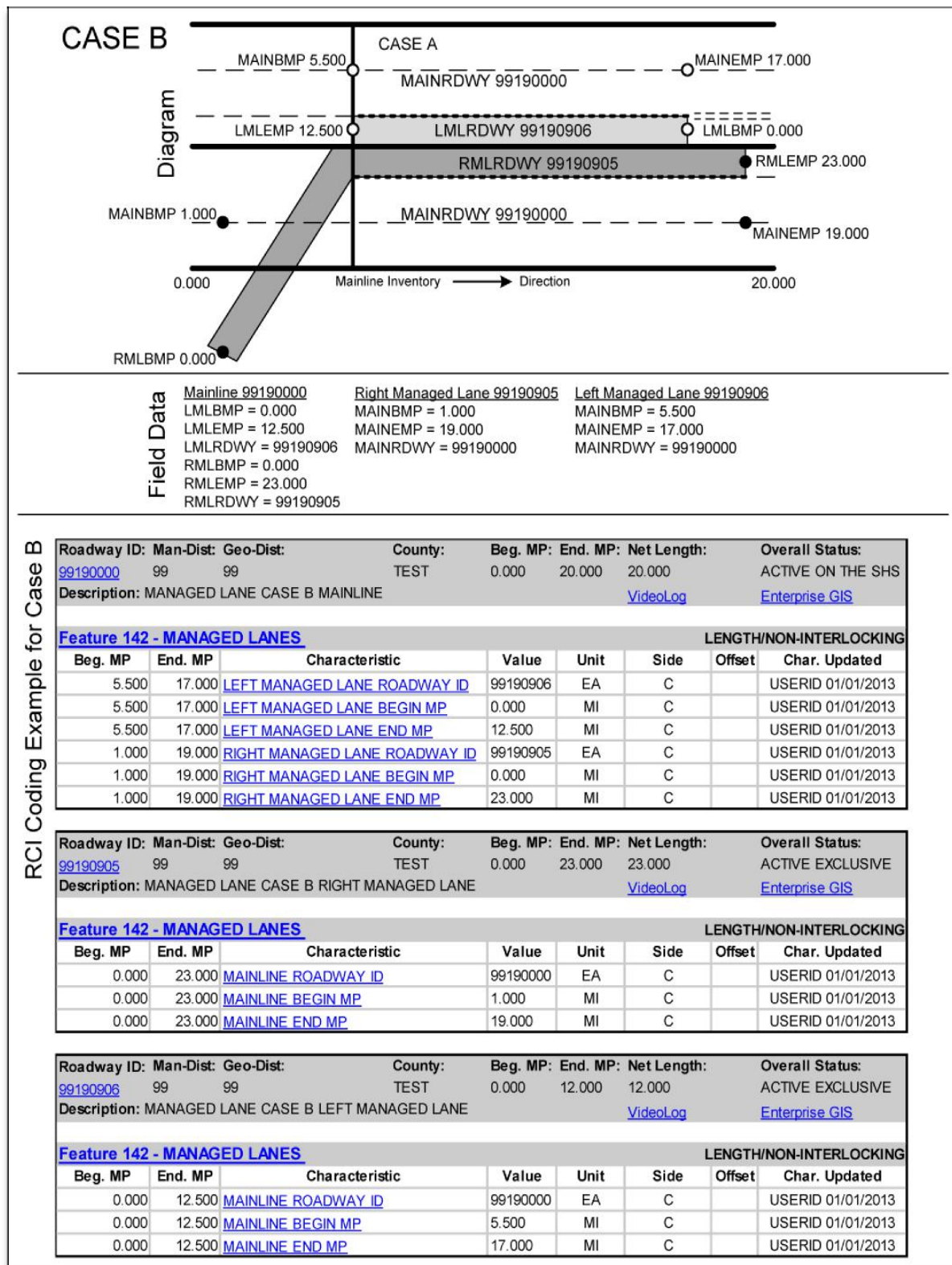
### *Mainline*

- There is no median or inside shoulder between the mainline and the managed lane of the same direction. However, if there is **not** a managed lane between the through lanes and the inside shoulder/median, then code the inside shoulder and  $\frac{1}{2}$  the width of the median.
- There will be no other changes made to the mainline data.

### *Managed Lane*

- Separate alignment—The managed lane data will be recorded the same way as any other roadway.
- Same alignment—Refer to CASE A above.

FIGURE 5.7 | MANAGED LANES—CASE B



## CASE C

Locations where the managed lanes run in between the Interstate lanes as a potential one-way or reversible facility (Effective April 2014).

### *Mainline*

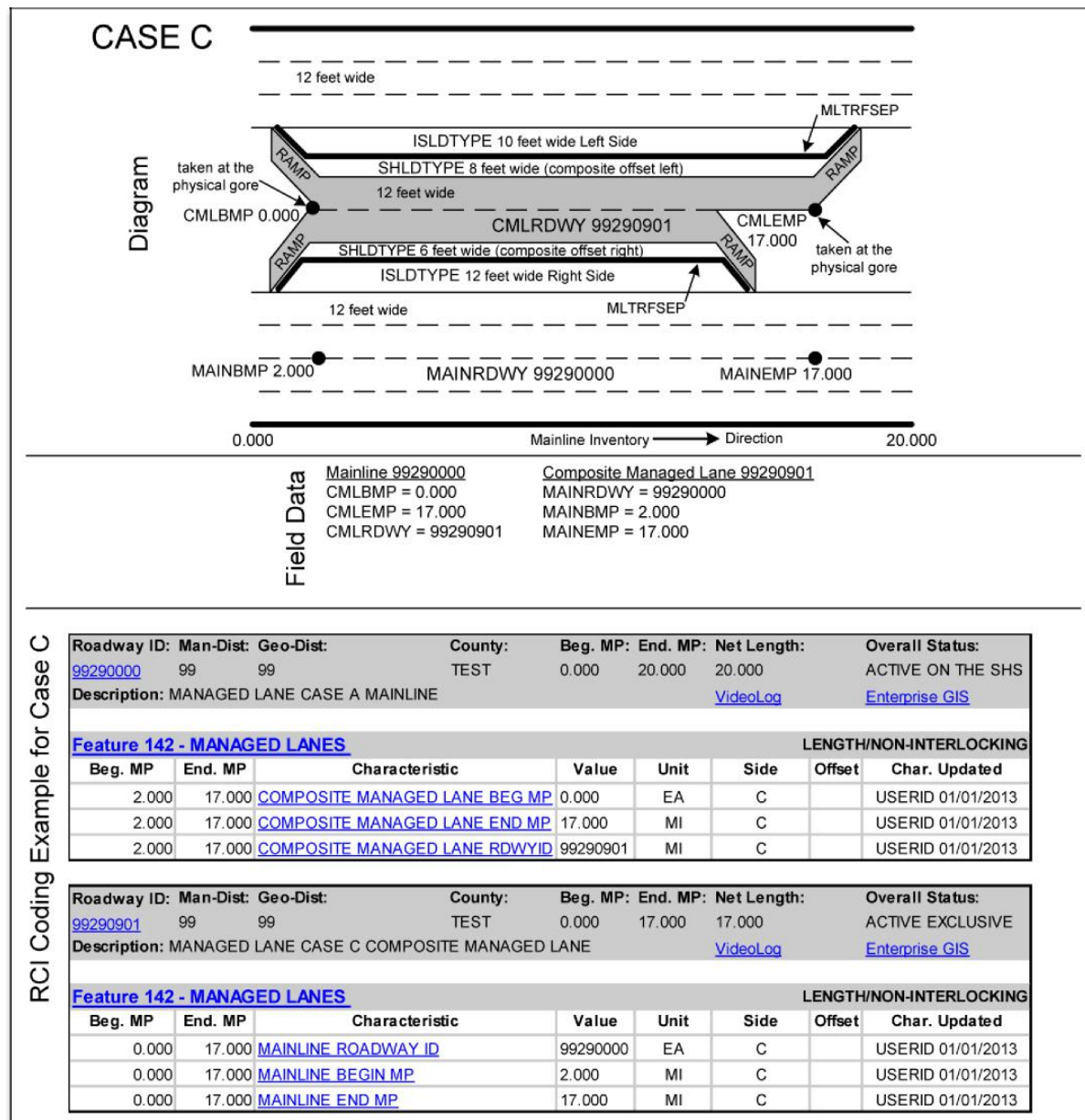
- Code all associated features as usual.
- Code Feature 215 RDMEDIAN as code 50.

### *Managed Lane*

- Separate alignment—Refer to CASE A above.
- Same alignment—The managed lane data will be recorded in the same manner as a one-way roadway. Code Feature 214 SHLDTYPE from the outside edge of the lane striping to the MLTRFSEP.



FIGURE 5.8 | MANAGED LANES—CASE C



### 5.1.6 *Reversible Lanes*

Reversible lanes refer to lanes in which traffic may travel in either direction, depending on the traffic peak demands and the operational hours of the roadway. Reversible lanes reduce congestion by handling traffic demands such as morning and evening commutes and may be reactive to other possible usages such as emergency events like hurricane evacuation or other local events. The directional flow of the reversible lanes is determined by operational hours at specified times and is adjusted by changeable message signs and barricades. Reversible lanes work through their ability to increase the lane capacity for peak lanes at the appropriate hours.

Reversible lanes are treated similar to new construction of a new roadway. As such, reversible lanes will add centerline miles to the SHS.

#### **Coding Requirements for Reversible Lanes**

- Assign an appropriate state roadway ID number for the reversible lane that is associated with the mainline with the next available suffix. Coordinate with the TDA Multimodal Data System Coordinator for proper numbering.
- SHS additional mileage paperwork will be required.
- RCI/LRS package will be submitted to add the reversible lanes to the LRS.
- The RCI V/U/D screen information will have the following codes:
  - The overall status of the reversible lane will be coded as “Active On the SHS.”
  - The road type will be coded as “Mainline.”
  - The mode type will be coded as “Roadway.”
  - The system will be coded as “State Highways.”
  - The state highway system will be coded as “Interstate” or “Primary.”
  - The compass direction will be the same as the associated mainline’s compass direction.
  - All ramps on the reversible lane will have the same compass direction as the associated mainline.
- The reversible lane will be inventoried as a one-way roadway.
- Generate SLDs and key sheets for the reversible lane.

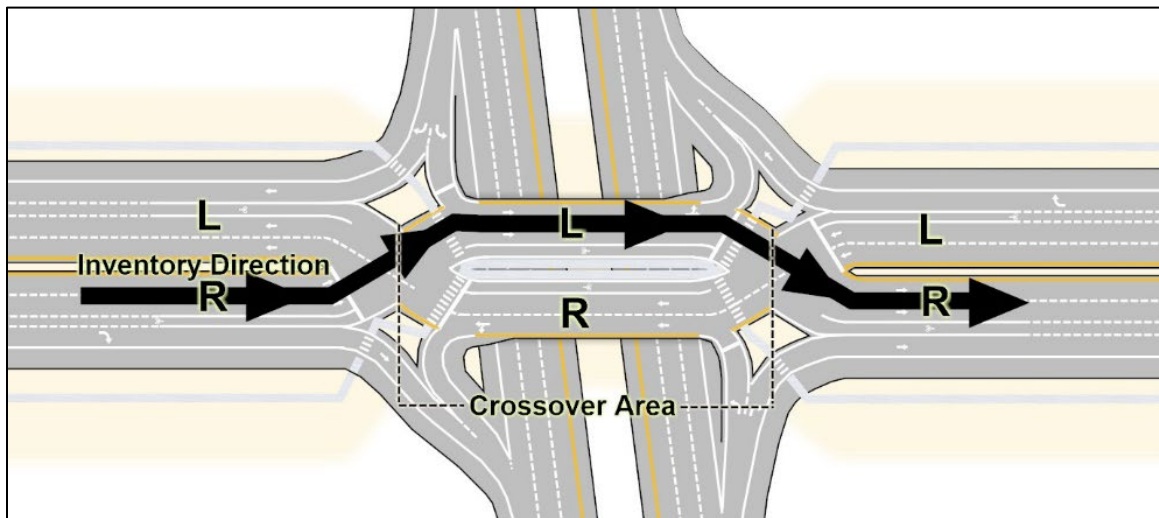


### 5.1.7 Diverging Diamond Interchanges

A crossover area is the roadway segment between two crossover intersections on a non-limited access facility that crosses over or under a limited access facility at a diverging diamond interchange (DDI).

Features and characteristics within the crossover area will be coded along the existing roadway ID and LRS centerline. For divided roads and dual carriageways, features and characteristics within the crossover area will be coded along the existing roadway ID and inventory direction. This means that characteristics that occur along the inventory direction will be coded as Side = L within the crossover area and as Side = R outside of the crossover area. Features and characteristics that change or start/stop at the crossover intersections must be broken at those intersections and tied to them.

**FIGURE 5.9 | CROSSOVER AREA AT A DIVERGING DIAMOND INTERCHANGE**



General guidance for coding within a crossover area is provided below. For coding requirements of individual features and characteristics, refer to Chapter 7 of this handbook.

#### Coding Requirements for Crossover Areas

- Inventory the crossover area by driving the established inventory direction along the roadway on which it appears.
- Code the milepoints for intersections under INTSDIRx under Feature 251—Intersection. Input “DDI XOVER” in the value field for the two crossover intersections.
- Code DDIXOVR under Feature 120—Type of Road. This feature defines the limits of the crossover area:

- Code the BMP at the center of the first crossover intersection that is encountered along the inventory direction.
- Code the EMP at the center of the second crossover intersection that is encountered along the inventory direction.
- Code the name of the interchange in the value field. If the interchange does not have a name, input the names of the intersecting roadways at the interchange.
- Code side and offset for features and characteristics as they appear with respect to the inventory direction, noting that inventory occurs on the left side within the crossover area.
  - If a characteristic was coded continuously through the interchange area prior to construction of the DDI and its side or offset changes at the crossover intersections, break that characteristic at the crossover intersections, and tie the BMP and EMP to the two crossover intersections.
- SLDs and county section number key sheets must be updated according to the requirements and timeliness standards of the GIRD Procedure, Topic No. 525-020-310.

### **5.1.8 Stationing Exceptions**

Feature 141—Stationing Exception, along with Feature 143—Associated Station Exception, provides a method of coding RCI roadway IDs with stationing exceptions. A stationing exception (a.k.a. an exception) occurs when two or more active roadway IDs overlap the same road-bed. To avoid duplication, the data is only reported under one roadway ID.

Usually, the roadway ID carrying the data will have a lower section or subsection number than the roadway ID with the exception. This concept allows a portion of two roadways to coincide on a single roadway with data reflected under only one roadway ID. Existing stationing exceptions maintain important information in the RCI system, however; they create an element of complexity when recalling data for a given roadway ID. When possible, solutions such as re-sectioning or subdividing new roadway IDs should be considered before creating additional stationing exceptions in the system. Refer to Chapter 7 of this handbook for specific coding requirements for Feature 141—Stationing Exception.

#### **Beginning and Ending Milepoints**

The beginning point of the exception is the centerline of the intersecting roadways where the two converge and the ending point is the centerline of the intersecting roadways where the two roadway IDs diverge.

#### **Coding Stationing Exceptions**

No data is coded for the specific roadway segment within the Feature 141 limits, because it points to the roadway that carries the exception information. If an exception begins or ends at either terminus of a roadway ID, then the terminus point will be recorded within the feature data. If an exception begins at the beginning of a roadway ID (0.000 MP), code the beginning roadway name located at that 0.000 MP. Conversely, if the exception ends at the ending point of the roadway ID, then the ending roadway name/MP of the exception will be coded.

## Roadway ID Assignment Hierarchy

To determine which roadway ID will have Feature 141 Stationing Exception coded, determine which roadway ID has the higher hierarchical value. The roadway ID with the higher hierarchical value will reflect the roadway data. The roadway ID with the lower hierarchical value will have Feature 141 coded referencing the higher hierarchical roadway ID.

The hierarchy order (from greatest significance to least significance):

- Existing work program assignment.
- NHS.
- Old federal-aid system.
- Strategic Intermodal System (SIS).
- Functional classification.
- Lowest Active On the SHS roadway ID.
- Lowest Active Off the SHS roadway ID.

The roadway ID with Feature 141 coded will show a gap on the SLD with a reference note to another roadway ID.

## Completing the Stationing Exception Process

All changes to lengths and statuses of roadway IDs require an RCI/LRS package to be sent to TDA Office requesting the change, addition, and/or deletion. Packages include changes to the federal-aid systems. Follow the process as listed in the Chapter 6 for the RCI/LRS package requirements.

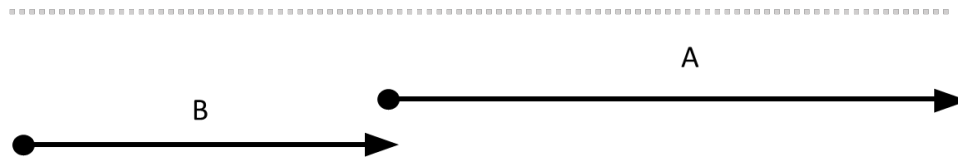
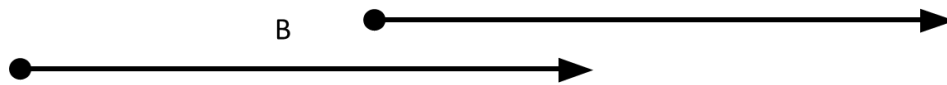
## How to Avoid Overlapping

Following two options are available for Districts to avoid overlapping, depending on the situation encountered.

### *Two Overlapping Active Off the SHS Roads—Option A*

In Figure 5.10, Roadway ID A has a lower roadway ID number than Roadway ID B. Roadway ID B is shortened to remove the exception. Data is only being recorded on one roadway ID. Feature 141 Stationing Exception does not have to be coded. Feature 141 only has to be coded for overlap of multiple active roadways.

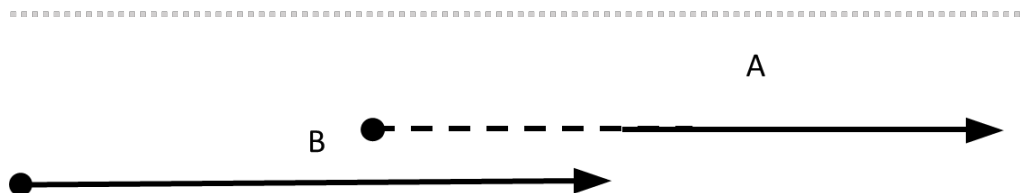
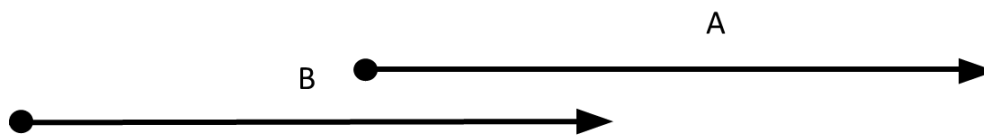
**FIGURE 5.10 | TWO OVERLAPPING ACTIVE OFF THE SHS ROADS—OPTION A**



*Two Overlapping Active Off the SHS Roads—Option B*

In Figure 5.11, Roadway ID B has a lower roadway ID number than Roadway ID A. Roadway ID A is inactivated where the two roadways overlap. However, it was not shortened because history must be maintained.

**FIGURE 5.11 | TWO OVERLAPPING ACTIVE OFF THE SHS ROADS—OPTION B**



*Examples*

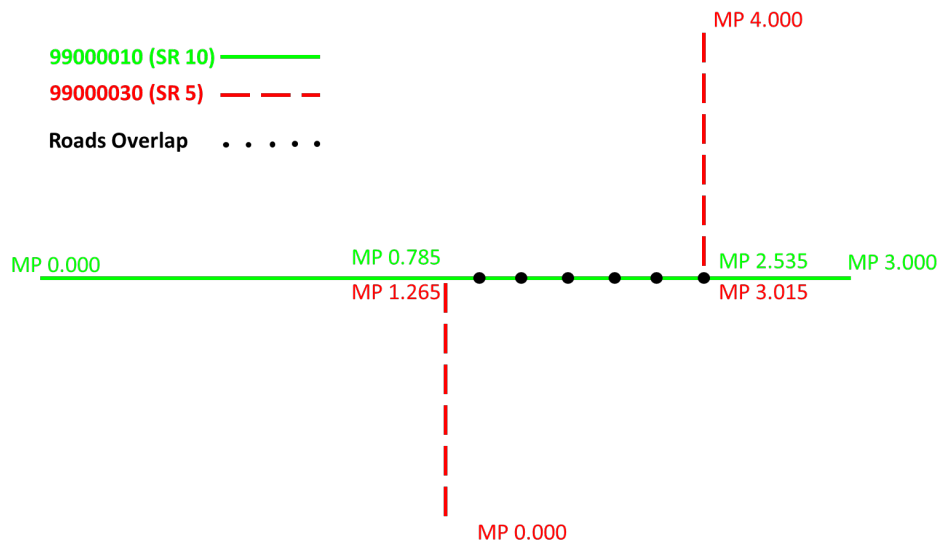
Figure 5.12 illustrates when, why, and how to code Feature 141—Stationing Exceptions and Feature 143—Associated Station Exception (automatically populated). Stationing exceptions must be coded when two active roadway ID alignments overlap on top of one another over the same road-bed or travel way.

In order to avoid reporting and coding the highway data twice for the overlapped alignments, a stationing exception is coded on one of the roadways and the data is coded on the other roadway. Stationing exceptions coded on a roadway ID creates a gap of data on that roadway. Since the data is coded only on one of the roadway IDs and a gap of data is shown on the other roadway ID, the highway data is only collected, coded, and reported once on one roadway ID.

The SLD for the roadway ID with Feature 141 coded will display a gap on the SLD to reflect the stationing exceptions and a reference to the corresponding roadway ID with the data. The SLD for the roadway ID that is reflecting the data will display continuous data on the SLD, without any gap.

Feature 141 is an interlocking feature. If the same BMP and EMP are coded for all the characteristics in Feature 141, this will interlock the characteristics and display the feature as blocks of data. Feature 143 is automatically generated when Feature 141 is coded. All other appropriate Planning features and characteristics will have to be reviewed and updated accordingly. See the RCI coding images on the following pages.

**FIGURE 5.12 | EXAMPLE ILLUSTRATING CODING OF STATIONING EXCEPTIONS**



*Roadway ID 99000010 (Higher Roadway ID with the Stationing Exceptions)*

Feature 141—Stationing Exception—Coding Requirements

- No data can be coded within the Feature 141 BMP or EMP milepoint range.
- The other features would have to be shortened or updated before Feature 141 can be coded so that no features are coded within Feature 141 milepoint range.
- Another important aspect of Feature 141 is that it cannot be edited nor updated once the feature is created. In order to make any changes to Feature 141, the feature must first be deleted and then re-entered with the new information.
- Code the BMP and EMP, MP 1.265 to MP 3.015, which are the limits of the stationing exceptions of the higher Roadway ID 99000030 that will not carry the data.
  - To determine which roadway ID to code Feature 141 under, the rule is to use the higher Roadway ID 99000030.
  - The lower Roadway ID 99000010 number will carry the data, since the lower Roadway ID 99000010 was usually created before the higher Roadway ID 99000030, if established practice of assigning roadway ID was used.
- Code BEGSECT, MP 0.785, which is the milepoint along the overlapped roadway (Roadway ID 99000010) where the overlap begins.
- Code ENDSECT, MP 2.535, which is the milepoint along the overlapped roadway (Roadway ID 99000010) where the overlap ends.
- Code RDWYID, the Roadway ID 99000010, which is the lower roadway ID that will carry the data.

- Refer to Chapter 7 for the coding requirements of Feature 141.

#### Feature 143—Associated Station Exception

No coding required.

- Automatically generated on the lower Roadway ID 99000010.
- Automatically generated if Feature 141 is correctly coded on the overlapped alignment higher Roadway ID 99000030.
- The information will be a mirror of Feature 141 on the lower Roadway ID 99000010 that carries the data on the overlap.
- All appropriate Planning features and characteristics will have to be reviewed and coded accordingly for Roadway ID 99000010, including data for the overlapped portion on Roadway ID 99000030.

Roadway ID:	Man-Dist:	Geo-Dist:	Country:	Beg. MP:	End. MP:	Net Length:	Overall Status:
<a href="#">99000010</a>	00	00	TEST	0.000	3.000	3.000	ACTIVE ON THE SHS
Description: EXAMPLE 4 SR 10						<a href="#">VideoLog</a>	<a href="#">Enterprise GIS</a>
<b>Feature 143 - ASSOCIATE STATION EXCEPTION</b>							<b>LENGTH/NON-INTERLOCKING</b>
Beg.MP	End.MP	Characteristic	Value	Unit	Side	Char. Updated	
0.785	2.535	<a href="#">BEG SECT PT OF EXCEPTION FIELD</a>	1.265	MI	C	KNRSHTL 05/29/2007	
		<a href="#">END SECT PT OF EXCEPTION FIELD</a>	3.015	MI	C	KNRSHTL 05/29/2007	
		<a href="#">COUNTY. SECT. SUB-SECTION</a>	99000030	ID	C	KNRSHTL 05/29/2007	

#### *Roadway ID 99000030 (Higher Roadway ID with the Stationing Exceptions)*

#### Feature 141—Stationing Exception

No coding required.

- Feature 141 was coded on the higher Roadway ID 99000030.

Roadway ID:	Man-Dist:	Geo-Dist:	Country:	Beg. MP:	End. MP:	Net Length:	Overall Status:
<a href="#">99000030</a>	00	00	TEST	0.000	4.000	2.250	ACTIVE ON THE SHS
Description: EXAMPLE 4 SR 5						<a href="#">VideoLog</a>	<a href="#">Enterprise GIS</a>
<b>Feature 141 – STATIONING EXCEPTION</b>							<b>LENGTH/NON-INTERLOCKING</b>
Beg.MP	End.MP	Characteristic	Value	Unit	Side	Char. Updated	
1.265	3.015	<a href="#">BEG SECT PT OF EXCEPTION FIELD</a>	0.785	MI	C	KNRSHTL 05/29/2007	
		<a href="#">END SECT PT OF EXCEPTION FIELD</a>	2.535	MI	C	KNRSHTL 05/29/2007	
		<a href="#">COUNTY. SECT. SUB-SECTION</a>	99000010	ID	C	KNRSHTL 05/29/2007	

#### Feature 143—Associated Station Exception

No coding required.

- Automatically generated on the lower Roadway ID 99000010.
- Automatically generated if Feature 141 is correctly coded on the overlapped alignment higher Roadway ID 99000030.
- The information will be a mirror of Feature 141 on the lower Roadway ID 99000010 that carries the data on the overlap.

Roadway ID: <a href="#">99000010</a>	Man-Dist: 00	Geo-Dist: 00	Country: TEST	Beg. MP: 0.000	End. MP: 3.000	Net Length: 3.000 <a href="#">VideoLog</a>	Overall Status: ACTIVE ON THE SHS <a href="#">Enterprise GIS</a>
Description: EXAMPLE 4 SR 10							
<b>Feature 143 - ASSOCIATE STATION EXCEPTION</b>						<b>LENGTH/NON-INTERLOCKING</b>	
Beg.MP	End.MP	Characteristic	Value	Unit	Side	Char. Updated	
0.785	2.535	<a href="#">BEG SECT PT OF EXCEPTION FIELD</a>	1.265	MI	C	KNRSHTL 05/29/2007	
		<a href="#">END SECT PT OF EXCEPTION FIELD</a>	3.015	MI	C	KNRSHTL 05/29/2007	
		<a href="#">COUNTY, SECT, SUB-SECTION</a>	99000030	ID	C	KNRSHTL 05/29/2007	

## 5.2 Editing Roadways

A roadway ID and its associated data may need to be edited based on several situations outlined in this section. Roadway ID edits may be performed based on construction or improvements, realignments, road jurisdiction transfers, inventory, or through interim revisions to improve the quality of information. The District RCI Coordinator will coordinate with District stakeholders and the TDA Office to update RCI and the LRS, create a new SLD, create a new Key Sheet if necessary and create a RITA record documenting changes. The sections below go into more detail of possible changes that may occur.

### 5.2.1 Realignments

The primary purpose of a roadway realignment is to improve transportation service through site-specific roadway improvements. A roadway is considered to be realigned if an existing alignment is replaced/changed or is physically removed and rebuilt on a different configuration. Realignments typically occur with construction of a new bridge, a safety project to straighten or reduce curves, or with safety improvements at an intersection.

Roadway construction where the alignment has not been altered from the existing travel path is not a realignment. Roadway reconstruction and widening are not considered realignments when they are constructed on the same alignment or existing roadway.

#### Realignment Length

The length of a realignment may be more or less than the length of the original alignment. All additions and deletions to the SHS mileages require appropriate District Secretary signature/approval; except minor realignments (0.100 mile or less) do not require a new roadway ID or SHS addition/deletion paperwork. For more details, refer to the Transportation System Jurisdiction and Numbering Procedure, Topic No. 525-020-010.

#### Roadway ID Retention

When a roadway is realigned, the original alignment retains the existing roadway ID and milepoints, and the new alignment is assigned a new sub-section number. The District is responsible for assigning the new sub-section number. The new number should maintain the original two-digit county and three-digit section numbers, with the next available sub-section number associated with the original alignment roadway ID as described in Chapter 3 of this handbook.

#### Beginning and Ending Milepoints

The BMP of the realigned sub-section starts at the centerline of where the old roadway diverges and ends at the centerline of the original roadway where it rejoins. For field inventory purposes, the BMP and EMP of the realignment should be tied to a nearby physical point that may easily be identified/located such as bridge joints, intersections, cross drains, or other non-movable physical characteristics. The milepoints should be compared and verified in the field with the construction plans stationing.

## Realignment Coding

Feature 138—Roadway Realignment and Feature 139—New Roadway Alignment are used strictly for roadway realignments. These two features cross-reference the realigned roadway IDs. Feature 138 is coded with the information for the new roadway ID. The old roadway alignment retains data for historical purposes and the updated data is entered on the new roadway ID. No feature data should be deleted from the old roadway alignment roadway ID.

### *Coding Feature 138 Roadway Realignment*

On the old roadway alignment, code Feature 138 with the information for the new Active On the SHS roadway ID. The old roadway alignment retains data for historical purposes and the updated data is input on the new roadway ID. The data from the old roadway alignment should be retained for one year after the roadway has been physically deleted. After the one-year anniversary date of the physical deletion, the data may be removed from RCI. Feature 140 must be changed to Deleted (if physically removed) or Inactive (not in use). Feature 138 is not required to be coded for Active Off the SHS and should not be coded for Active Exclusive roadways.

Refer to Chapter 7 for data collection and coding details.

### *Coding Feature 139—New Roadway Alignment (No Coding Necessary)*

Feature 139 is automatically generated for a roadway realignment when Feature 138 is coded on the original roadway alignment.

### *Coding Feature 140—Section Status Exception*

If any portion of the roadway is physically removed along the roadway, then Feature 140 must be coded for the deleted portion. The same applies for any portion made Inactive.

For a new Active On the SHS alignment, Feature 140 (OSDATE) must be coded to reflect the date the mileage was officially added to the SHS. OSDATE is the date the District Secretary signed the SHS mileage paperwork. An RCI/LRS package must be submitted to create the new roadway ID with an Active On the SHS status.

### *V/U/D Screen Overall Status*

Overall status on the V/U/D screen is either Active On the SHS or Active Off the SHS depending on ownership for a mainline roadway. Feature 140 must be coded to match the overall status. When it is necessary to have more than one status on a roadway, then the overall status must be changed to Active with Combination and an RCI/LRS package submitted to TDA Office.

## HPMS Samples

Any part of an HPMS Sample that exists in an area where the realignment occurs must be review by the TDA HPMS Coordinator. HPMS Samples need to be reviewed for recommendations, as every situation is different. Sometimes samples are shortened or moved to a new roadway ID while sometimes they are deleted.

## Active Off the SHS Realignments

When an Active Off the SHS roadway requires a realignment, as determined by construction notification, local decision making, an office review or field visit, the Districts can use one of the following processes:

- Current realignment process:



- Submit an RCI/LRS package to create a new roadway alignment, change the status of the old roadway ID to Inactive or Deleted and the District must code Feature 138 on the old roadway alignment.
- Alternate Active Off the SHS realignment process:
  - Re-inventory the Active Off the SHS alignment.
  - Submit an RCI/LRS package to adjust the data to match the re-inventory.
  - Email all stakeholders on the District notification list, including the following offices:
    - › Safety Office.
    - › District and Central Office (CO) Traffic Data Sections.
    - › Adjacent Districts, if the alignment begins or ends at a District boundary.
    - › TDA Multimodal Data System Coordinator.
    - › TDA Highway HPMS Coordinator.\*
    - › CO Strategic Intermodal System (SIS) Coordinator.\*
    - › Other District stakeholders.

*\*If either HPMS or SIS is affected.*

Changes to RCI and the LRS will be submitted to TDA Office in an RCI/LRS package. Aerials and/or GPS data will be submitted as appropriate. Once the changes in the package have been completed, the District will contact the applicable stakeholders regarding the change.

If the TDA Spatial Data & Analytics division determines that an Active Off the SHS roadway needs a realignment, the District is given 90 days from the notification email date to make all of the appropriate changes to RCI and the LRS. Completion of these changes will be tracked using the monthly RCI/LRS discrepancy report.

The following Active Off the SHS candidates for the alternate Active Off the SHS realignment process will be approved on a case-by-case basis:

- Any portion of the roadway with an NHS designation; coordinate with the TDA Multimodal Data System Coordinator.
- Any portion of the roadway with a federal-aid or old federal-aid designation; coordinate with the TDA Multimodal Data System Coordinator.
- Any portion with SIS designation or SIS connectors; coordinate with the State SIS Coordinator.
- Any portion with any railroads; coordinate with the Freight and Multimodal Operations Office.
- Any portion with any structures; coordinate with the Office of Maintenance.

However, some Active Off the SHS realignments will not apply to this alternate Active Off the SHS realignment process, i.e., when significant history needs to be retained or if the Active Off the SHS roadway interfaces with the SHS network. See the exclusion list below.

Exclusions to the alternate Active Off the SHS realignment process:

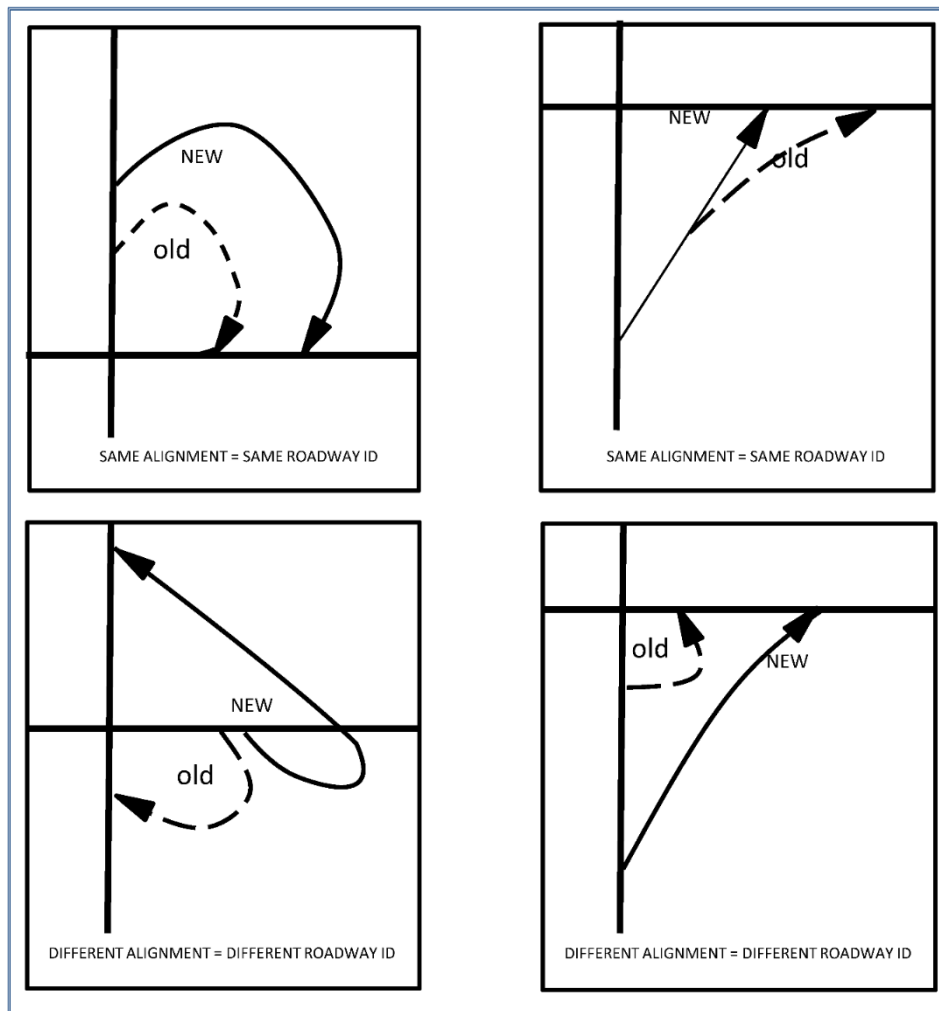
- One or more segments of the Active Off the SHS alignment include an Active On the SHS portion, i.e., an Active with Combination.
- Any portion with a functional classification that interfaces with a nearby Active On the SHS roadway.
- Any portion with a documented road jurisdiction transfer.
- Any portion with an overall status of Local Roads with FM Projects.

The intent of the alternate Active Off the SHS realignment process is to eliminate the need for any District work that does not add value to the processes for maintaining the roadway network. This will reduce the amount of work the Districts are required to do related to processing Active Off the SHS roadway realignments. Early coordination must be made with TDA Office, prior to an RCI/LRS package submittal, to determine which process would be more appropriate. It is imperative that whichever process the District uses, either the current Active Off the SHS realignment or alternate Active Off the SHS realignment process; the District must commit to it for the duration of the transaction and not switch processes midstream.

### **Active Exclusive Realignments**

Any ramp realignment will retain the same roadway ID number if the realigned ramp still connects from and to the same roadways and essentially follows the same alignment. If the realignment is different from the old alignment, then a different roadway ID number will be assigned.

**FIGURE 5.13 | ACTIVE EXCLUSIVE REALIGNMENTS**



### **Special Ramps to Rest Areas/Weigh Stations/Agricultural Stations**

When a ramp to rest areas/weigh stations/agricultural stations is realigned and the location of the facility remains the same, the existing roadway ID will be retained. The ramp alignment will be adjusted in the LRS to the new alignment and Distance Measuring Instrument (DMI) field measured length.

However, if the location of the facility changes and results in a realignment of the ramp, then a new roadway ID will be assigned, and the original roadway ID is made Inactive.

Only ramps to agricultural stations maintained by the Department are required to have roadway IDs and a 5-year inventory cycle.

### **Realignment of a State Road with Retention of Old Roadway Alignment**

If the original roadway alignment was not physically deleted, a portion of the old roadway bed was retained and provides access to adjacent properties or connects to other roadways and still functions as a roadway, then a new state road number must be designated to the old alignment. The original state road number can be re-designated or transferred to the new roadway alignment.

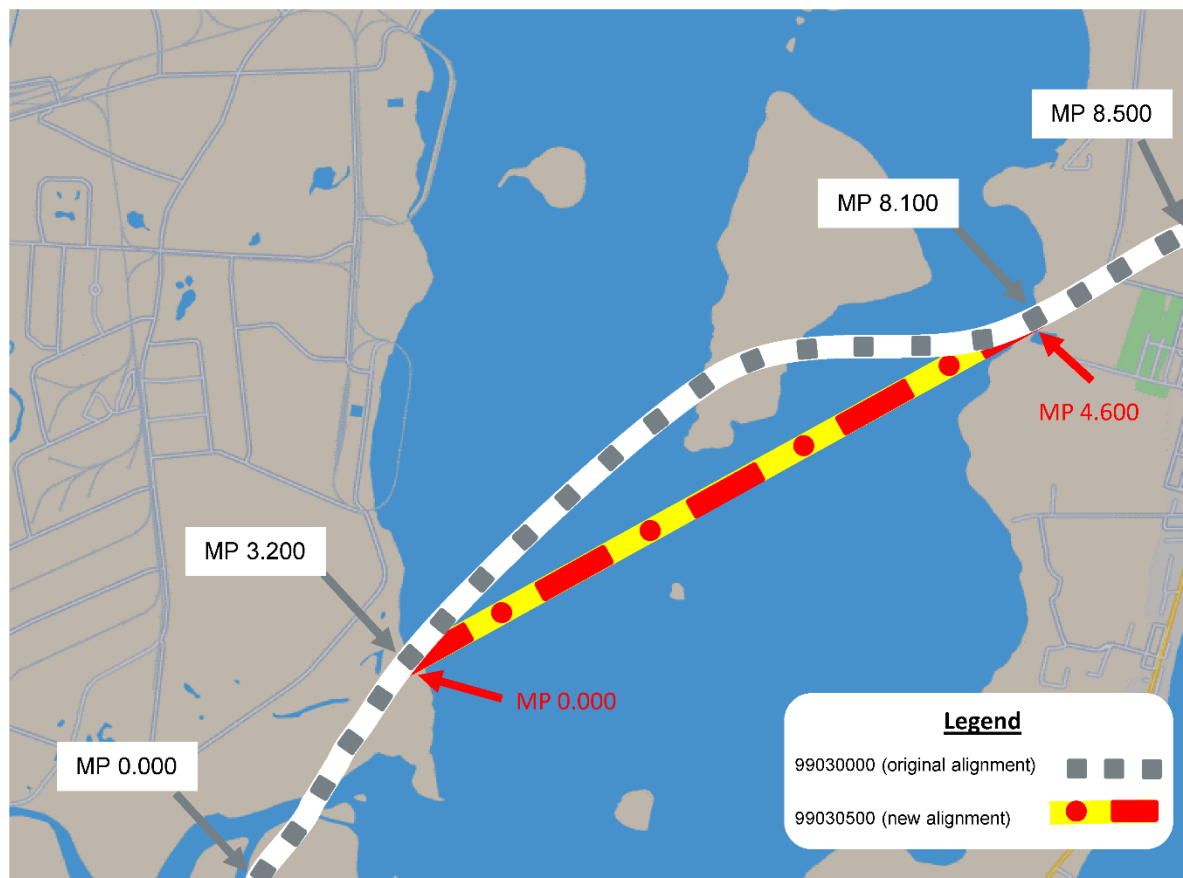
Any changes to the V/U/D screen require an RCI/LRS package to be submitted. Refer to Chapter 6 regarding the package/process.

### **Realignment of a State Road with Retention of Old Roadway Alignment Resulting from New Construction Example**

Figure 5.14 illustrates a realignment of a state road resulting from new construction, where the old roadway alignment became Inactive. Examples are used as illustrations only, not intended to represent any specific roadway.

- Roadway ID 99020000 from MP 3.200 to MP 8.100, the original bridge was realigned but old structure physically remained and converted to a pedestrian trail/fishing pier.
- Roadway ID 99020500 from MP 0.000 to MP 4.600, was the new roadway ID assigned to the new bridge alignment. A sub-section number of the original roadway ID was used.
- The new bridge of 4.600 miles was slightly shorter than the old bridge of 4.900 miles.
- The state road number was transferred to the new bridge alignment, because the old alignment no longer functioned as a roadway.
- The District Secretary must approve/sign the changes to the SHS mileage and re-designation of the state road number.
- The District must prepare and submit the appropriate approved SHS addition/deletion paperwork to the TDA Office via RCI/LRS package as outlined in the Transportation System Jurisdiction and Numbering Handbook.
- Appropriate RCI administrative features must be updated according to the requirements and timeliness standards of the Transportation System Jurisdiction and Numbering Procedure, Topic No. 525-020-010 and GIRD Procedure, Topic No. 525-020-310.
- Appropriate RCI physical features and characteristics, SLDs, and county section number key sheet must be updated according to the requirements and timeliness standards of the GIRD Procedure, Topic No. 525-020-310.
- All other appropriate Planning features and characteristics must be reviewed and updated accordingly.

**FIGURE 5.14 | REALIGNMENT EXAMPLE**



*Roadway ID 99020000 (Original Bridge Alignment)*

Feature 111—State Road System

- Code new milepoint breaks for the multiple State Road number designations.
  - Code MP 0.000 to MP 3.200 as the original “SR” State Road number.
  - Code MP 3.200 to MP 8.100 as “OS” Old State Road Number since the roadway was transferred from the SHS.
  - Code MP 8.100 to MP 8.500 as the original “SR” State Road number.
- Refer to Chapter 7 for coding requirements of Feature 111.

Feature 138—Roadway Realignment

- Feature 138 was coded on the old alignment. Feature 138 is an interlocking feature that automatically codes Feature 139 if all the characteristics are coded using the same BMP and EMP.

- Code BMP 3.200 to EMP 8.100 for all the characteristics of Feature 138, which was the limit of the old bridge alignment.
- Code NALIGNDT, which was the date of the realignment. Use the date when the deletion of roadway mileage was officially deleted off the SHS as approved/signed by the District Secretary.
- Code 99020500 for NALIGNID, the new alignment roadway ID.
- Code MP 0.000 for NALNBGPT, the new alignment BMP.
- Code MP 4.600 for NALNENPT, the new alignment EMP.
- Refer to Chapter 7 for coding requirements of Feature 138.

<b>Roadway ID:</b> <a href="#">99020000</a>	<b>Man-Dist:</b> 00	<b>Geo-Dist:</b> 00	<b>Country:</b> TEST	<b>Beg. MP:</b> 0.000	<b>End. MP:</b> 8.500	<b>Net Length:</b> 3.600	<b>Overall Status:</b> ACTIVE WITH COMBINATION
<b>Description:</b> EXAMPLE 2 ROAD						<a href="#">VideoLog</a>	<a href="#">Enterprise GIS</a>
<b>Feature 138 - ROADWAY REALIGNMENT</b>							<b>LENGTH/NON-INTERLOCKING</b>
<b>Beg.MP</b>	<b>End.MP</b>	<b>Characteristic</b>	<b>Value</b>	<b>Unit</b>	<b>Side</b>	<b>Char. Updated</b>	
3.200	8.100	<a href="#">NEW ALIGNMENT DATE</a>	05/01/2007	DA	C	KNRSHTL 05/25/2007	
		<a href="#">SECT/SUBSECT OF NEW AUGMENT</a>	99020500	ID	C	KNRSHTL 05/25/2007	
		<a href="#">NEW ALIGNMENT BEG. PT.</a>	0.000	MI	C	KNRSHTL 05/25/2007	
		<a href="#">NEW ALIGNMENT END. PT.</a>	4.600	MI	C	KNRSHTL 05/25/2007	

#### Feature 140—Section Status Exception

- Code multiple milepoint breaks for the multiple section statuses.
  - Code 02—Active On the SHS from MP 0.000 to MP 2.000 for the section status of the limits of the old alignment that was not realigned.
  - Code 04—Inactive from MP 3.200 to MP 8.100 for the limits of the old bridge that was converted to a pedestrian trail/fishing pier.
    - › Code OSDATE, the date when the old alignment mileage was officially deleted from the SHS System as approved/signed by the District Secretary.
    - › All other original features or characteristics data coded should NOT be deleted nor removed from RCI.
    - › It should be retained for history on the physically deleted old alignment.
    - › Feature 140 Inactive code reflects the inactive status of the roadway. Any feature data coded within the Inactive milepoint range will not be reported, therefore there is no need to delete nor remove any of the data.
  - Code 02—Active On the SHS from MP 8.100 to MP 8.500 for the section status of the limits of the old alignment that was not realigned.
- Refer to Chapter 7 for coding requirements of Feature 140.

Roadway ID:	Man-Dist:	Geo-Dist:	Country:	Beg. MP:	End. MP:	Net Length:	Overall Status:
99020000	00	00	TEST	0.000	8.500	3.600	ACTIVE WITH COMBINATION
Description: EXAMPLE 2 ROAD						<a href="#">VideoLog</a>	<a href="#">Enterprise GIS</a>
<b>Feature 140 - SECTION STATUS EXCEPTION</b>							<b>LENGTH/NON-INTERLOCKING</b>
Beg.MP	End.MP	Characteristic	Value	Unit	Side	Char. Updated	
0.000	3.200	<a href="#">ON OR OFF-SYSTEM DATE</a>	04/15/1963	DA	C	KNRSHTL 05/25/2007	
		<a href="#">SECTION STATUS EXCEPTION</a>	02 - ACTIVE ON THE SHS	CD	C	KNRSHTL 05/25/2007	
3.200	8.100	<a href="#">ON OR OFF-SYSTEM DATE</a>	05/01/2007	DA	C	KNRSHTL 05/25/2007	
		<a href="#">SECTION STATUS EXCEPTION</a>	04 - INACTIVE	CD	C	KNRSHTL 05/25/2007	
8.100	8.500	<a href="#">ON OR OFF-SYSTEM DATE</a>	04/15/1963	DA	C	KNRSHTL 05/25/2007	
		<a href="#">SECTION STATUS EXCEPTION</a>	02 - ACTIVE ON THE SHS	CD	C	KNRSHTL 05/25/2007	

### V/U/D Screen

Since the roadway has multiple section statuses, the overall status for the roadway ID should be changed to Active with Combination.

- Any changes to the V/U/D screen require a submittal of an RCI/LRS package to TDA Office.
- Overall Descriptions may be submitted via email requests. Multiple items should be submitted as a spreadsheet attachment
- Refer to the RCI/LRS Reconciliation Package process and requirements provided in Chapter 6.

### *Roadway ID 99020500 (New Bridge Alignment)*

All Planning physical features and characteristics should be collected and coded for the new roadway alignment. Coordinate with the other offices to have their RCI features collected and coded for the new roadway alignment.

### Feature 111—State Road System

- MP 0.000 to MP 4.600 should be coded with the state road number designation of the original alignment, since the state road number designation was transferred to the new bridge alignment.
- Refer to Chapter 7 for the coding requirements of Feature 111.

### Feature 138—Road Realignment

No coding required.

- Feature 138 was coded under original alignment Roadway ID 99020000.

### Feature 139—New Roadway Alignment

No coding required.

- Automatically generated on the new alignment Roadway ID 99020500.

- Automatically generated if Feature 138 was correctly coded on the original alignment Roadway ID 99020000.
- The information will be a mirror of Feature 138 on the alignment Roadway ID 99020000.

Roadway ID:	Man-Dist:	Geo-Dist:	Country:	Beg. MP:	End. MP:	Net Length:	Overall Status:
<a href="#">99020500</a>	00	00	TEST	0.000	4.600	4.600	ACTIVE ON THE SHS
Description: EXAMPLE 2 NEW ALIGNMENT						<a href="#">VideoLog</a>	<a href="#">Enterprise GIS</a>
<b>Feature 139 - NEW ALIGNMENT</b>							<b>LENGTH/NON-INTERLOCKING</b>
Beg.MP	End.MP	Characteristic	Value	Unit	Side	Char. Updated	
0.000	4.600	<a href="#">SECT./SUBSECT.OF OLD ALIGNMENT</a>	99020000	ID	C	KNRSHTL 05/25/2007	
		<a href="#">OLD ALIGNMENT BEG. PT.</a>	3.200	MI	C	KNRSHTL 05/25/2007	
		<a href="#">OLD ALIGNMENT END. PT.</a>	8.100	MI	C	KNRSHTL 05/25/2007	

#### Feature 140—Section Status Exception

- Code OSDATE, the date when the new alignment mileage was officially added to the SHS system as approved/signed by the District Secretary.
- Code 02—Active On the SHS from MP 0.000 to MP 8.500 for the section status of the limits of the new alignment.
- Refer to Chapter 7 for the coding requirements of Feature 140.

Roadway ID:	Man-Dist:	Geo-Dist:	Country:	Beg. MP:	End. MP:	Net Length:	Overall Status:
<a href="#">99020500</a>	00	00	TEST	0.000	4.600	4.600	ACTIVE ON THE SHS
Description: EXAMPLE 2 NEW ALIGNMENT						<a href="#">VideoLog</a>	<a href="#">Enterprise GIS</a>
<b>Feature 140 - SECTION STATUS EXCEPTION</b>							<b>LENGTH/NON-INTERLOCKING</b>
Beg.MP	End.MP	Characteristic	Value	Unit	Side	Char. Updated	
0.000	4.600	<a href="#">ON OR OFF-SYSTEM DATE</a>	05/01/2007	DA	C	KNRSHTL 05/25/2007	
		<a href="#">SECTION STATUS EXCEPTION</a>	02 - ACTIVE ON THE SHS	CD	C	KNRSHTL 05/25/2007	

### **Realignment of a State Road with Physical Deletion Resulting from New Construction Example**

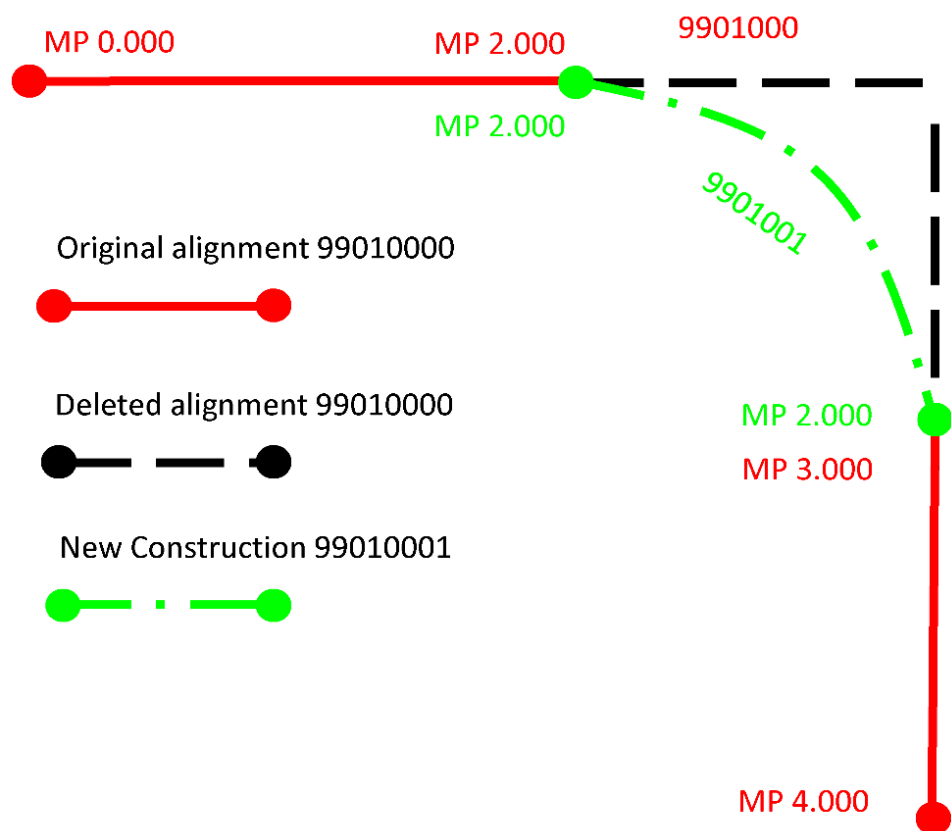
This example illustrates a realignment of a state road resulting from new construction, where the original alignment was physically deleted. The original roadway was realigned from a sharp right angle turn to a smooth curve, to enhance traffic movement and increase safety. The asphalt of the old roadway was removed, and a new roadway bed was built in a different configuration. (See Figure 5.15)

- Roadway ID 99010000 from MP 2.000 to MP 3.000, the original alignment was realigned and physically deleted. The data for the physically deleted portion should NOT be removed from RCI. Feature 140 should be coded Deleted to reflect the physically deleted portion of the roadway.
- Roadway ID 99010001 from MP 0.000 to MP 0.800 was a new roadway ID assigned to the new alignment. A subsection number of the original roadway ID was used.
- The new alignment of 0.800 mile was shorter than the old alignment of 1.000 mile.
- The state road number has been transferred to the new alignment because the old alignment no longer exists.
- The District Secretary must approve the changes to the SHS mileage and the re-designation of the state road number.



- The District must prepare and submit the appropriate approved SHS addition/deletion paperwork to TDA Office, according to the Transportation System Jurisdiction and Numbering Handbook.
- Appropriate RCI administrative features should be updated according to the requirements and timeliness standards of the Transportation System Jurisdiction and Numbering Procedure, Topic No. 525-020-010 and GIRD Procedure, Topic No. 525-020-310.
- Appropriate RCI physical features and characteristics, SLD, and county section number key sheet should also be updated according to the requirements and timeliness standards of the GIRD Procedure, Topic No. 525-020-310. Also, all other appropriate Planning features and characteristics will have to be reviewed and updated accordingly.

**FIGURE 5.15 | REALIGNMENT EXAMPLE**



*Roadway ID 99010000 (Original Alignment)*

Feature 111—Section Status Exception

No coding required.

- The state road number of the original alignment should retain the original milepoint coding for the original state road number designation.
- The data should be retained for history on the original alignment of the state road number designation.

### Feature 138—Road Realignment

- Feature 138 was coded on the original alignment. Feature 138 is an interlocking feature if all the characteristics are coded using the same BMP and EMP.
  - Code BMP 2.000 to EMP 3.000 for all the characteristics of Feature 138 for the limits of the physical deletion of the original alignment.
  - Code NALIGNDT, the date of the realignment. Use the date when the deletion of roadway mileage was officially deleted off the SHS as approved by the District Secretary.
  - Code 99010001 for NALIGNID, the new alignment roadway ID.
  - Code MP 0.000 for NALNBGPT, the new alignment BMP.
  - Code MP 0.800 for NALNENPT, the new alignment EMP.
- Refer to Chapter 7 for the coding requirements of Feature 138.

Roadway ID:	Man-Dist:	Geo-Dist:	Country:	Beg. MP:	End. MP:	Net Length:	Overall Status:
<a href="#">99010000</a>	00	00	TEST	0.000	4.000	3.000	ACTIVE WITH COMBINATION
Description: EXAMPLE 1 ROAD						<a href="#">VideoLog</a>	<a href="#">Enterprise GIS</a>
<b>Feature 138 - ROADWAY REALIGNMENT</b>							<b>LENGTH/NON-INTERLOCKING</b>
Beg.MP	End.MP	Characteristic	Value	Unit	Side	Char. Updated	
2.000	3.000	<a href="#">NEW ALIGNMENT DATE</a>	05/01/2007	DA	C	KNRSHTL 05/25/2007	
		<a href="#">SECT/SUBSECT OF NEW AUGMENT</a>	99010001	ID	C	KNRSHTL 05/25/2007	
		<a href="#">NEW ALIGNMENT BEG. PT.</a>	0.000	MI	C	KNRSHTL 05/25/2007	
		<a href="#">NEW ALIGNMENT END. PT.</a>	0.800	MI	C	KNRSHTL 05/25/2007	

### Feature 140—Section Status Exception

- Code multiple milepoint breaks for the multiple section statuses.
  - Code 02—Active On the SHS from MP 0.000 to MP 2.000 for the section status of the original alignment that was not realigned.
  - Code 05—Deleted from MP 2.000 to MP 3.000 for the section status of the original alignment that was physically deleted and removed.
  - Code OSDATE, the date when the original alignment mileage was officially deleted from the SHS system as approved/signed by the District Secretary.
- All other original features and characteristics data coded on the physically deleted portion should NOT be deleted nor removed from RCI.
- The data should be retained for history on the physically deleted original alignment.
- Feature 140 Deleted code will reflect the physically deleted roadway. Any feature data coded within the Deleted milepoint range will not be reported, therefore there is no need to delete nor remove any of the data.

- Code 02—Active On the SHS from MP 3.000 to MP 4.000, should be coded for the section status of the original alignment that was not realigned.
- Refer to Chapter 7 for the coding requirements of Feature 140.

Roadway ID:	Man-Dist:	Geo-Dist:	Country:	Beg. MP:	End. MP:	Net Length:	Overall Status:	
<a href="#">99010000</a>	00	00	TEST	0.000	4.000	3.000	ACTIVE WITH COMBINATION	
Description: EXAMPLE 1						<a href="#">VideoLog</a>	<a href="#">Enterprise GIS</a>	
ROAD								
Feature 140 - SECTION STATUS EXCEPTION							LENGTH/NON-INTERLOCKING	
Beg.MP	End.MP	Characteristic			Value	Unit	Side	Char. Updated
0.000	2.000	<a href="#">ON OR OFF-SYSTEM DATE</a>			04/15/1963	DA	C	KNRSHTL 05/25/2007
		<a href="#">SECTION STATUS EXCEPTION</a>			02 - ACTIVE ON THE SHS	CD	C	KNRSHTL 05/25/2007
2.000	3.000	<a href="#">ON OR OFF-SYSTEM DATE</a>			05/01/2007	DA	C	KNRSHTL 05/25/2007
		<a href="#">SECTION STATUS EXCEPTION</a>			05 - DELETED	CD	C	KNRSHTL 05/25/2007
3.000	4.000	<a href="#">ON OR OFF-SYSTEM DATE</a>			04/15/1963	DA	C	KNRSHTL 05/25/2007
		<a href="#">SECTION STATUS EXCEPTION</a>			02 - ACTIVE ON THE SHS	CD	C	KNRSHTL 05/25/2007

### V/U/D Screen

Since the roadway has multiple section statuses, the overall status for the roadway ID should be Active with Combination.

- Any changes to the V/U/D screen require a submittal of an RCI/LRS package to the TDA Office.
- Refer to Chapter 6 of this handbook for the RCI/LRS Package Process and requirements.

### *Roadway ID 99010001 (New Alignment)*

All Planning physical features and characteristics should be collected and coded for the new roadway alignment. Coordinate with the other offices to have their RCI features collected and coded for the new roadway alignment.

### Feature 111—State Road System

- MP 0.000 to MP 0.800, state road number designation of the original alignment.
- Refer to Chapter 7 for the coding requirements of Feature 111.

### Feature 138—Roadway Realignment

No coding required.

- Feature 138 was coded under original alignment Roadway ID 99010000.
- Feature 139 will automatically generate on the new alignment Roadway ID 99010001.

### Feature 139—New Roadway Alignment

No coding required.

- Automatically generated on the new alignment Roadway ID 99010001.
- Automatically generated if Feature 138 was correctly coded on the original alignment Roadway ID 99010000.

- The information will be a mirror of Feature 138 on the original alignment Roadway ID 99010000.

Roadway ID:	Man-Dist:	Geo-Dist:	Country:	Beg. MP:	End. MP:	Net Length:	Overall Status:
<a href="#">99010001</a>	00	00	TEST	0.000	0.800	0.800	ACTIVE ON THE SHS
Description: EXAMPLE 1 NEW ALIGNMENT						<a href="#">VideoLog</a>	<a href="#">Enterprise GIS</a>
<b>Feature 139 - NEW ALIGNMENT</b>							<b>LENGTH/NON-INTERLOCKING</b>
Beg.MP	End.MP	Characteristic	Value	Unit	Side	Char. Updated	
0.000	0.800	<a href="#">SECT/SUBSECT OF OLD ALIGNMENT</a>	99010000	ID	C	KNRSHTL 05/25/2007	
		<a href="#">OLD ALIGNMENT BEG. PT.</a>	2.000	MI	C	KNRSHTL 05/25/2007	
		<a href="#">OLD ALIGNMENT END. PT.</a>	3.000	MI	C	KNRSHTL 05/25/2007	

#### Feature 140—Section Status Exception

- Code OSDATE, the date when the new alignment mileage was officially added to the SHS system as approved/signed by the District Secretary.
- Code 02—Active On the SHS from MP 0.000 to MP 0.800, the limits of the new alignment.
- Refer to Chapter 7 for coding requirements of Feature 140.

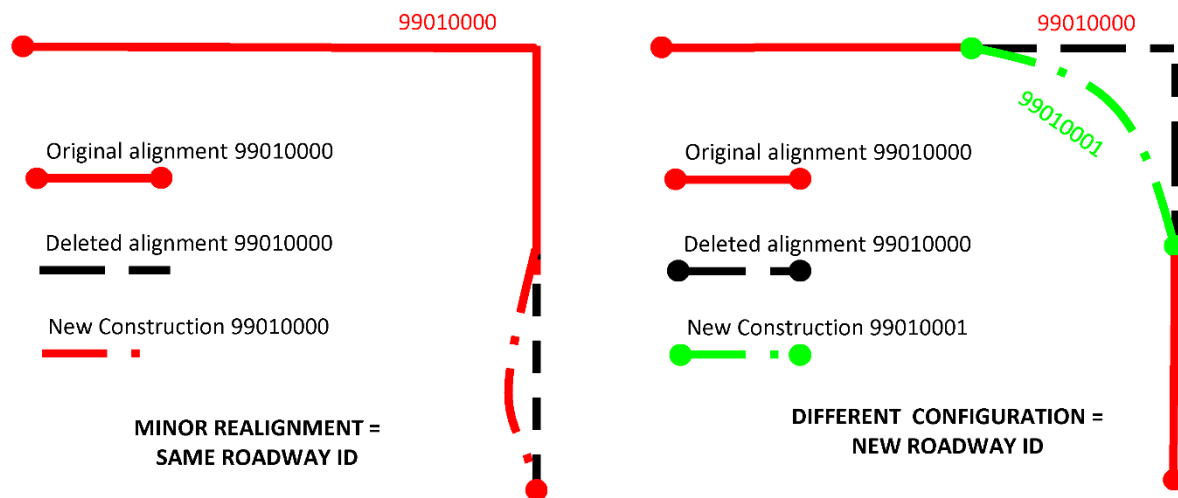
Roadway ID:	Man-Dist:	Geo-Dist:	Country:	Beg. MP:	End. MP:	Net Length:	Overall Status:
<a href="#">99010001</a>	00	00	TEST	0.000	0.800	0.800	ACTIVE ON THE SHS
Description: EXAMPLE 1 NEW ALIGNMENT						<a href="#">VideoLog</a>	<a href="#">Enterprise GIS</a>
<b>Feature 140 - SECTION STATUS EXCEPTION</b>							<b>LENGTH/NON-INTERLOCKING</b>
Beg.MP	End.MP	Characteristic	Value	Unit	Side	Char. Updated	
0.000	0.800	<a href="#">ON OR OFF-SYSTEM DATE</a>	05/01/2007	DA	C	KNRSHTL 05/25/2007	
		<a href="#">SECTION STATUS EXCEPTION</a>	02 - ACTIVE ON THE SHS	CD	C	KNRSHTL 05/25/2007	

### Minor Realignment of a Mainline

Mainline realignments will retain the same roadway ID number if the realigned segment essentially follows the same configuration, still connects to the same points along the mainline or the adjacent roadway and does not require right-of-way acquisition. Inventory must be conducted to update RCI features and characteristics on the realigned segment.

A realignment that results in a shortening or lengthening greater than 0.1 miles is not considered a minor realignment.

**FIGURE 5.16 | REALIGNMENT EXAMPLE**



*Example*

This example illustrates a realignment of a state facility resulting from new construction, where a new roadway ID was not established.

79110000 (I-4/SR-400) was realigned through the interchange at I-95 outside of Daytona Beach. This is a dual carriageway where changes were made to the alignments of both the eastbound and westbound lanes, 79110000 and 79110800, respectively. The realignment occurred along with a new ramp configuration at this interchange.

- Roadway ID 79110000 was reconstructed from MP 27.233 to MP 28.020.
- 28.020 was the ending milepoint of 79110000 before realignment.
- The old roadbed was physically removed.
- The new alignment of 79110000 is 0.003 miles longer than the original alignment.
- The new alignments were constructed within the existing right-of-way.
- The LRS routes for 79110000 and 79110800 were adjusted to fit the new alignments. New roadway IDs were not created.
- SHS addition/deletion paperwork is not required.
- Appropriate RCI administrative features should be updated according to the requirements and timeliness standards of the Transportation System Jurisdiction and Numbering Procedure, Topic No. 525-020-010 and GIRD Procedure, Topic No. 525-020-310.
- The new alignment should be inventoried and appropriate RCI physical features and characteristics, SLDs, and county section number key sheet should be updated according to the requirements and timeliness standards of the GIRD Procedure, Topic No. 525-020-310.
- All other appropriate Planning features and characteristics should be reviewed and updated accordingly.

**FIGURE 5.17 | REALIGNMENT EXAMPLE**



### 5.2.2 Shortening and Lengthening

Roadway section lengths and the associated data may need to be adjusted to accurately reflect field conditions or the Department's business decisions. These adjustments include shortening or lengthening section lengths which require special attention and coordination with Districts and TDA Office to update data and information appropriately. Common occurrences that require these types of revisions include adjusting lengths based on field inventory after construction is complete and adjusting lengths for accuracy and quality purposes to ensure sections are accurately assigned to the state or the local entity, Roadway sections must not have gaps or overlaps to adjacent roadway sections.

#### Roadway ID Shortening

Roadway sections are typically shortened when pending roadway lengths are field verified, when revisions are performed, or realignments to roadways occur. An existing roadway section may be shortened only if the shortening occurs at the end of the roadway ID alignment. A roadway may be shortened if an error occurred when a roadway was initially entered into RCI without field verification. Shortening roadway section lengths will affect the length of features or characteristics related to those sections which must be edited for consistency prior to shortening or this change will cause errors.

An existing roadway section may be shortened if the length of a roadway in RCI does not match the field measurement, if the original length was from a quarter quad map when the roadway ID was created, or if the roadway was originally measured at a painted gore and is now being measured at a physical gore.

The constructed and field-measured lengths may be different if the EMP was estimated for a Pending roadway. This situation may require a shortening in RCI after a field inventory of the completed roadway.

## Roadway ID Lengthening

An existing roadway ID may be lengthened if the extension is at the end of a roadway. However, the District should ensure that the change will not cause overlaps or gaps with other roadway IDs. A roadway ID may be lengthened due to errors in RCI when it was initially entered without field verification or for new construction. In addition, if two or more roadways are combined, the roadway ID at the beginning of the segment will be lengthened, and it will carry the data for the roadway.

### 5.2.3 Combining

#### Coincident Roadway IDs

Coincident roadway IDs may be present within the system. When entering new roadway IDs, overlapping roadways will not be accepted. When two or more roadway IDs are assigned to the same alignment, the greatest hierarchal roadway ID with the greater hierarchal value must be chosen to represent the alignment (see section 5.1.7 Stationing Exceptions for Roadway ID Assignment Hierarchy). The overlapped roadway ID on the SHS shall be placed in Inactive status on the V/U/D screen. For Active Off the SHS roadways, the District may choose, to either delete the overlapped roadway ID number or place the roadway ID in an Inactive status.

#### Combining Roadway IDs

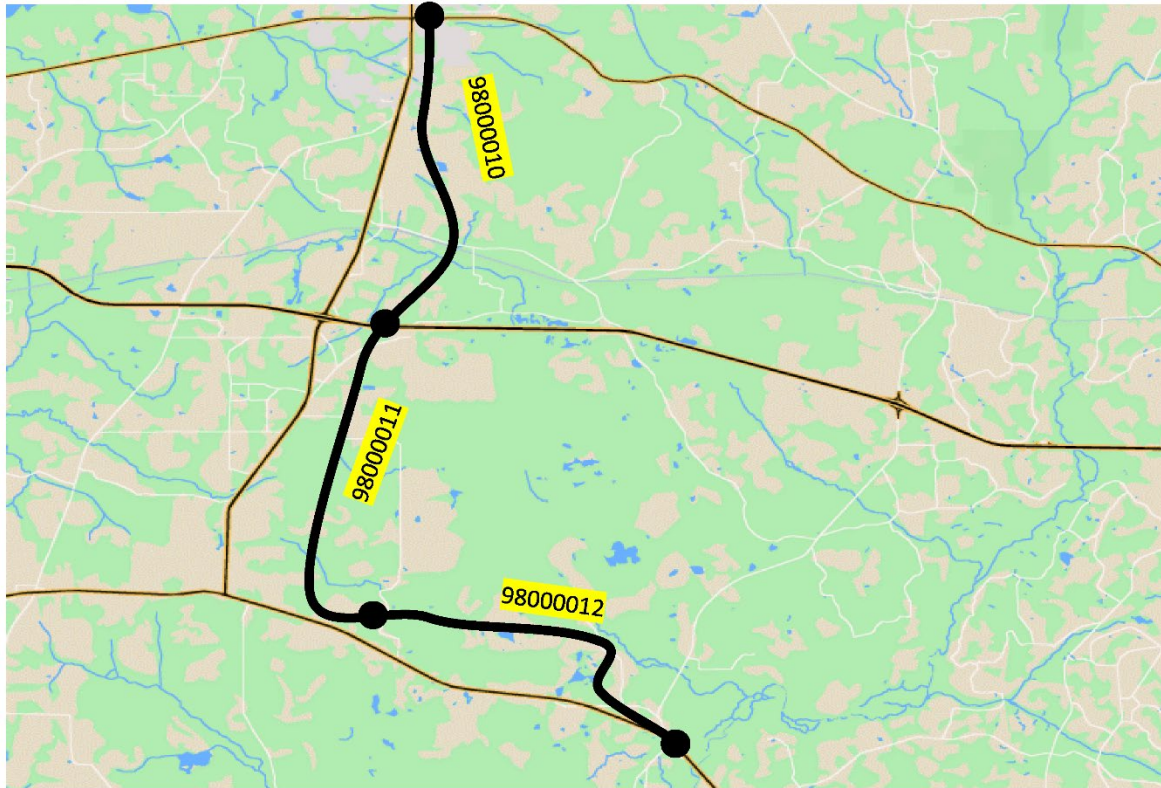
When there are multiple contiguous Active Off the SHS alignments, these roadway IDs can be combined into one. This requires that all the information found in the adjoining roadway IDs be transferred to the roadway ID with the furthest South or West beginning milepoint. An inventory of the merged roadway ID shall be necessary to obtain accurate milepoints. The District must request any changes to the merged roadway ID alignment and request that the remaining ID(s) be deleted from the RCI database by submitting an RCI/LRS package. Districts must work with TDA Office before combining any roadway IDs. (GIRD Procedure, Topic No. 525-020-310).

#### Combining Roadway IDs Example

Active Off the SHS Roadway IDs 98000010, 98000011, and 98000012 are consecutive roadway segments. They can be combined into one roadway ID number. Roadway IDs 98000011 and 98000012 may be combined with Roadway ID 98000010. This would be accomplished by transferring the data from Roadway IDs 98000011 and 98000012 to 98000010, and then deleting Roadway IDs 98000011 and 98000012. This process of combining roadway IDs into one number allows easier re-inventory and streamlines both the RCI database and the RCI/LRS. (See Figure 5.18 and Figure 5.19)



**FIGURE 5.18 | ORIGINAL ROADWAY ID NUMBERING**



**FIGURE 5.19 | REVISED ROADWAY ID NUMBERING**





## 5.3 Retiring Roadways

### 5.3.1 *Physically Removed*

If any segment of the roadway is physically removed, whether at the beginning, the ending, or anywhere along the roadway, then Feature 140 must be coded to reflect the deleted segments. The BMP and/or EMP should not be changed nor moved for a physical deletion for Active On the SHS roadways.

#### **V/U/D Screen Overall Status**

If any segment of a mainline roadway is coded Deleted and Feature 140 has more than one status coded, then it is necessary to submit an RCI/LRS package to TDA Office to change the overall status on the V/U/D screen to Active with Combination.

#### **Coding Feature 140—Section Status Exception for Road Segments**

If any segment of the roadway is physically removed elsewhere along the roadway, then Feature 140 must be coded for the deleted segments. Submit an RCI/LRS package to change the overall status on the V/U/D screen to Active with Combination.

#### **Coding Feature 140—Section Status Exception for Entire Roadway**

If the entire roadway is physically removed, then Feature 140 should NOT be updated. Submit an RCI/LRS package to TDA Office to change the overall status on the V/U/D screen to Deleted. The data must be retained in RCI for a minimum of 5 years.

After 5 years, the District may elect to delete all the data in RCI and submit an RCI/LRS package to have the roadway ID deleted from RCI. There is no mandate to delete the data after the minimum 5-year retention.

#### **SHS Paperwork**

SHS mileage deletion paperwork must be submitted with the RCI/LRS package for physical removal of any roadbed on the SHS.

**NOTE:** SHS mileage paperwork does not have to be submitted for deletion of Active Off the SHS and Active Exclusive roadways, since their mileage is excluded from the SHS mileage.

#### **Physically Removed Beginning of Roadway ID Alignment**

If any segment of an Active Off the SHS or Active Exclusive roadway is physically removed at the beginning, then the BMP can be changed to a non-zero milepoint. All data must be updated to start from the new BMP. Submit an RCI/LRS package to TDA Office to change the BMP.

#### **Physically Removed Ending of Roadway ID Alignment Ramps**

If any segment of any roadway is physically removed at the ending, then the roadway ID can be shortened to the new EMP.

All data must be shortened to the new EMP. Submit an RCI/LRS package to TDA Office to shorten the EMP.

If any segment of the ramp or frontage road is physically removed elsewhere along the roadway, submit an RCI/LRS package to have the roadway ID number made Inactive and replaced with a new roadway ID.

### 5.3.2 *Deletion of a Roadway*

#### **Inactivating a Roadway**

SHS roadway IDs cannot be deleted, even if they are being combined into a single number. Data must be retained for historical purposes. Roadway ID status on the V/U/D screen should be revised to Inactive. Do not delete any data for this roadway in RCI.

Active Off the SHS roadway IDs should NOT be deleted if they have:

- Construction/reconstruction records in the FM System.
- Roadways with structures and/or railroad crossings.
- On or proposed for the NHS.
- On or proposed for the SIS or SIS connector.
- Old secondary system.

#### **Reassignment**

Roadway ID reassignment is done to combine and eliminate multiple roadway IDs. The District can elect to replace the existing roadway ID with a new one by assigning a new roadway ID. The original roadway ID will be made Inactive. An RCI/LRS package will need to be submitted to have the overall status on the V/U/D screen of the original roadway ID(s) changed to Inactive and create a new roadway ID. Any roadway ID reassignments must be approved by the TDA Office prior to any data changes. All stakeholders should be coordinated with to ensure all data is transferred to the new roadway ID.

### 5.3.3 *Inactive*

An inactive status is a characteristic value that indicates a roadway ID and its associated data will no longer be considered as an operational number. (Operational numbers are used to store current RCI data.) RCI data coded under this number must be retained for an indefinite period. This road may or may not be of any interest later.

#### **Active On the SHS**

If any segment of an Active On the SHS roadway is made Inactive, whether at the beginning, the ending, or anywhere along the roadway, then Feature 140 must be coded to reflect the Inactive segments. If Feature 140 has more than one code, an RCI/LRS package will need to be submitted to have the overall status in the V/U/D screen changed to Active with Combination. (See Figure 5.20)

#### **Active Off the SHS Beginning of Roadway ID Alignment**

If any segment of an Active Off the SHS roadway is made Inactive at the beginning, then the BMP can be changed to a non-zero milepoint. All data will start from the new BMP. An RCI/LRS package will need to be submitted to change the BMP.

## Old Secondary System Roadway

Old secondary system will be treated as Active Off the SHS roads.

## Ending of Roadway ID Alignment

If any segment of an Active Off the SHS roadway is made Inactive at the end, then the roadway ID can be shortened to the new EMP. All data will be shortened to the new EMP. An RCI/LRS package will need to be submitted to shorten the EMP.

If any segment of an Active Off the SHS roadway is made Inactive elsewhere along the roadway, then Feature 140 must be coded to reflect the Inactive segments. An RCI/LRS package will need to be submitted to have the overall status in the V/U/D screen changed to Active with Combination. (See Figure 5.20)

## Active Exclusive

If any segment of the ramp or frontage road is made Inactive elsewhere along the roadway, then an RCI/LRS package will need to be submitted to have the roadway ID number made Inactive and replaced with a new roadway ID.

## Entire Roadway

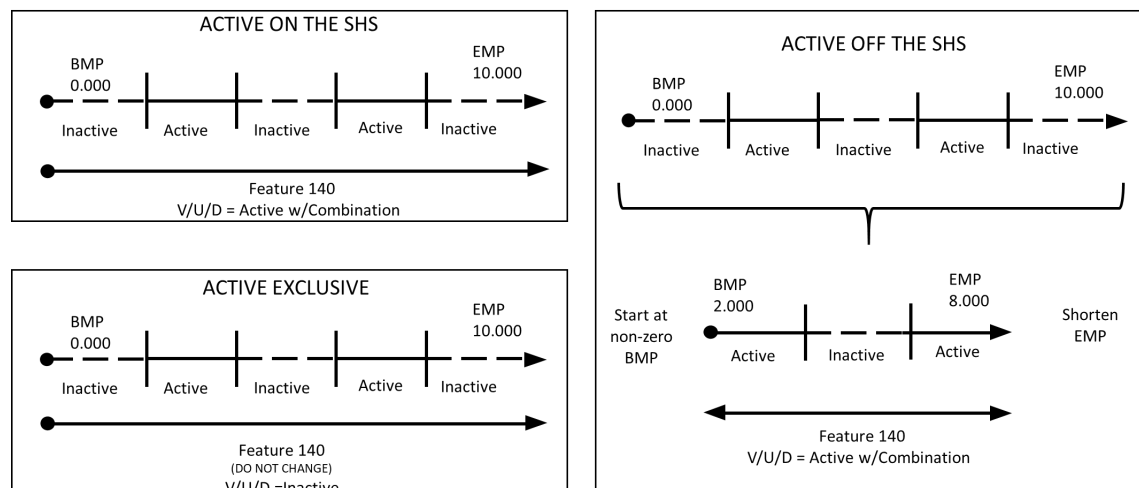
If the entire roadway is made Inactive, Feature 140 should NOT be changed. An RCI/LRS package will need to be submitted to have the overall status in the V/U/D screen changed to Inactive.

## SHS Paperwork

SHS mileage deletion paperwork must be submitted with the RCI/LRS package for any physical removal of any roadbed, since inactivating any segments of the roadway subtracts from the mainline mileage and affects the SHS mileage report. Reference the Transportation System Jurisdiction and Numbering Handbook regarding the SHS mileage paperwork.

SHS mileage paperwork does not have to be submitted for deletion of Active Off the SHS and Active Exclusive roadways, since their mileage is excluded from the SHS mileage.

**FIGURE 5.20 | EXAMPLE FOR INACTIVE STATUS**



An HPMS sample cannot be removed without prior approval of the TDA HPMS Coordinator since every HPMS Sample is tracked by FHWA.

## 5.4 Route Sequencing

### 5.4.1 *District Responsibilities*

To facilitate route sequencing in RCI and to allow GIS and other mapping sequencing, it is necessary to code Feature 111—State Road System and Feature 113—AASHTO on Active Exclusive roadways. This includes recording state, U.S., and interstate route numbers that are assigned to the mainline for Active Exclusive roadways. For this step, match the same section number (3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup> digits) of the roadway ID number with the mainline. For example, ramp 55320049 located at U.S.-27/SR-63 (55010000) and I-10/SR-8 (55320000) would receive Feature 111 coding of SR-8 and Feature 113 coding of I-10.

The same coding methodology applies to Active Exclusive roadways located at the interchange of two interstates such as I-10 and I-75. The feature coding for the Active Exclusive ramps would reflect the roadway number from the mainline that has the identical section number (3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup> digits) of the eight-digit roadway ID number. An example of this would be that for ramp 29180067, the Feature 111 and Feature 113 will utilize I-75/SR-93 from the mainline I-75/SR-93 (29180000) and not I-10/SR-8 from the mainline 29170000.

### 5.4.2 *TDA Responsibilities*

To complete the route sequence, code the associated route numbers in the proper route segment order as it appears geographically along the mainline. This route sequence design puts frontage roads, ramps, and other similar roadways in parallel with the associated mainline. It allows for one-way subsections to be placed parallel with the other appropriate one-way portions of the mainline. The entire sequencing process is automated with the use of the milepoint linkages from data based on RCI features. The only manual sequencing required is to arrange the mainline counties in the proper order. This step is critical for roadways entering a county more than once, such as I-10 through Washington and Holmes Counties. This method also provides for ramps intersecting ramps, as is the case with many of the major directional (non-loop) interchanges. Note that there are many ramps to frontage roads that have ramps to the local highway system. This design also provides for the automated designation of reversal sections.

# CHAPTER 6

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## LINEAR REFERENCING SYSTEM





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## CHAPTER 6. LINEAR REFERENCING SYSTEM

# 6

This chapter provides an overview of Florida Department of Transportation (FDOT)'s Linear Reference System (LRS), an ESRI ArcGIS product with customized Transportation Data and Analytics (TDA) GIS applications. To aid the Districts in recording all revisions, updates, and modifications to roads in Roadway Characteristics Inventory (RCI) and the LRS, the TDA Office developed the RCI/LRS Package Process. This chapter describes the RCI/LRS Package Process in detail to help Districts send revisions to the TDA Office through the MyFloridaLRS application, which will allow the office to track and complete changes in a timely manner. Additionally, this chapter provides an overview of the GIS programs and associated products used with RCI.

This chapter also provides an overview of Federal Highway Administration (FHWA)'s Highway Performance Monitoring System's (HPMS) reporting requirements to submit an LRS that includes all public roads. This requirement is known as the "All Roads Network of Linear Referenced Data" (ARNOLD), where all state departments of transportation (DOT) are responsible for maintaining a geospatial dataset and its associated attributes on all roads open to public travel.

## 6.1 Linear Referencing System

The FDOT's LRS is composed of arcs and routes that geographically represent specific roadways in the RCI. The LRS is a method of spatial referencing that describes the location of physical features along a route in terms of a fixed point (milepoint) or line (through lanes) along the route. The FDOT's LRS is projected in UTM17N.

FDOT assigns the LRS routes an eight-digit roadway ID; each ID contains an Overall Status Field: Active On the State Highway System (02), Active Exclusive (07), Active Off the State Highway System (09), GIS Route (10), Active with Combination (12), Local Roads with FM Projects (16), and Active Off Exclusive (17). Roadway IDs with an Overall Status of Pending (01) or Deleted (05) are not in the LRS. The official FDOT maps only display existing roadways in the database that are open to traffic.

The LRS serves multiple purposes; it can:

- Perform mandatory submittal to the FHWA for annual HPMS reporting.
- Provide a quality assurance tool for RCI Feature lengths and alignment locations.
- Produce dynamic segmentation—LRS data layers from RCI Features.
- Create the state's city-to-city mileage matrix.
- Perform data analysis, such as curve classification and compass bearing.
- Produce maps.

### 6.1.1 LRS Maintenance

The TDA LRS Coordinator works with appropriate staff from the Central and District offices to make additions, corrections, or deletions to the LRS, ensuring compatibility between the RCI and LRS roadway ID lengths and maintaining alignments.

RCI/LRS maintenance includes the following tasks:

- Add new roadway alignments.
- Delete roadway alignments.
- Lengthen or shorten existing roadway alignments.
- Modify roadway alignments to aerial photography.
- Verify and add exceptions (validate overlaps).
- Eliminate gaps.
- Eliminate duplicate arcs and nodes.
- Verify valid dangling arcs.

- Verify/add dual carriageways.

The arcs in the LRS are digitized from data provided by the Districts in the form of shapefiles from GPS alignments and/or maps compiled by the Districts. The digitized arcs in the LRS contain attributes that identify them as mainline, ramp, connector, or GIS route. If the arc is an LRS connector, dual carriageway, or a GIS route, it will not be included in the route information. LRS connectors are arcs that connect routes to each other or connect a ramp to a mainline, providing connectivity to the roadways. The connectors are also used when calculating the city-to-city mileage.

Dual carriageways and GIS routes exist in the LRS, however they are created on an individual basis and should not carry any data. All interstates, for example, have both dual carriageway routes and GIS routes in the LRS.

### ***6.1.2 RCI/LRS Reconciliation Process***

Each route in the LRS is composed of underlying arc(s) that transfer information to the route. This includes a field for the LRS digitized length in miles, RTLENGTH, which is compared with the RCI length as a part of the RCI/LRS Reconciliation Process.

The LRS Coordinator provides monthly reports to identify the roadway IDs with alignment lengths that do not match the RCI lengths within the discrepancy selection criteria. The results of these reports determine which roadway IDs the Districts should address through RCI/LRS Package submittals, which detail the steps taken to correct the discrepancies.

The monthly discrepancy reports are located at: <https://fmw.state.fl.us:8890/apps/gis/welcome>. The LRS Coordinator reports discrepancies found by the formula described in the Discrepancy Selection Criteria using the aggregate number of roadway IDs by District and County. Each aggregate number of County roadway IDs is separated by type of discrepancy and Overall Status and totaled for each County and District. A sample is provided in Figure 6.1.

**FIGURE 6.1 | RCI/GIS BASEMAP DISCREPANCY SUMMARY**

**RCI/GIS Basemap Discrepancy SUMMARY 04/2020**

Districts/Counties with Zero(0) Discrepancies have been removed

January 2005 began utilizing revised criteria

District County Name	Difference >= .10 mi OF RCI LENGTH				Difference >= 05% OF RCI LENGTH				Missing Listed BY RCI Status				Total
	[02]	[12]	[07]	[09,16,17]	[02]	[12]	[07]	[09,16,17]	[02]	[12]	[07]	[09,16,17]	
1-13-MANATEE	0	0	0	1	0	0	0	0	0	0	0	0	1
1-16-POLK	0	0	0	1	0	0	0	0	0	0	0	0	1
1-17-SARASOTA	0	0	0	0	0	0	0	0	0	0	0	1	1
<b>1-District Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>3</b>

District County Name	Difference >= .10 mi OF RCI LENGTH				Difference >= 05% OF RCI LENGTH				Missing Listed BY RCI Status				Total
	[02]	[12]	[07]	[09,16,17]	[02]	[12]	[07]	[09,16,17]	[02]	[12]	[07]	[09,16,17]	
5-11-LAKE	0	1	0	0	0	0	0	0	0	0	0	0	1
5-36-MARION	0	1	0	0	0	0	0	0	0	0	0	0	1
<b>5-District Total</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>

District County Name	Difference >= .10 mi OF RCI LENGTH				Difference >= 05% OF RCI LENGTH				Missing Listed BY RCI Status				Total
	[02]	[12]	[07]	[09,16,17]	[02]	[12]	[07]	[09,16,17]	[02]	[12]	[07]	[09,16,17]	
6-87-MIAMI-DADE	0	0	0	0	0	0	1	0	0	0	0	0	1
<b>6-District Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>

District County Name	Difference >= .10 mi OF RCI LENGTH				Difference >= 05% OF RCI LENGTH				Missing Listed BY RCI Status				Total
	[02]	[12]	[07]	[09,16,17]	[02]	[12]	[07]	[09,16,17]	[02]	[12]	[07]	[09,16,17]	
<b>Statewide Total</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>6</b>

The LRS Discrepancy Report provides a link (District RCI/GIS Basemap Detail Report) to each District's Detail Report (Figure 6.2). This listing is used to identify individual roadway IDs, their discrepancy type, whether they are excluded, and any brief comments that might be of use. The roadway IDs are grouped by County and are in ascending order.

**FIGURE 6.2 | RCI/GIS BASEMAP DETAIL REPORT—EXAMPLE**

**RCI/GIS Basemap Detail Report for District: 1 For Period 04/2020**

CNTY	SECTION	RDST	BGN	END	BM_LNGH	DIFF	ERR	IND	EXC	COMMENTS
03	03000524	12	0.000	6.700	4.057	2.643	.10	N	E	part Pending 9/14/15-3/6/2019
<b>END COLLIER</b>										
CNTY	SECTION	RDST	BGN	END	BM_LNGH	DIFF	ERR	IND	EXC	COMMENTS
12	12000050	12	0.000	3.000	1.392	1.608	.10	N	E	10/14/2019
<b>END LEE</b>										
CNTY	SECTION	RDST	BGN	END	BM_LNGH	DIFF	ERR	IND	EXC	COMMENTS
13	13000140	09	0.000	3.108	3.348	0.240	.10	N		
<b>END MANATEE</b>										
CNTY	SECTION	RDST	BGN	END	BM_LNGH	DIFF	ERR	IND	EXC	COMMENTS
16	16160500	09	0.000	1.088	1.935	0.847	.10	N		
16	16390000	12	0.000	7.000	2.058	4.942	.10	N	E	part Pending 3/3/14
16	16900003	16	0.000	0.200			MIS	N	E	bridge off road FM 11/9/2016
<b>END POLK</b>										
CNTY	SECTION	RDST	BGN	END	BM_LNGH	DIFF	ERR	IND	EXC	COMMENTS
17	17900002	16	0.000	0.100			MIS	N		Pkg needed-see notes KP-469-7/10/19
<b>END SARASOTA</b>										
CNTY	SECTION	RDST	BGN	END	BM_LNGH	DIFF	ERR	IND	EXC	COMMENTS

### 6.1.3 Discrepancy Selection Criteria

The acceptable deviation (as of 9/20/2006) between the LRS and RCI mileage lengths for each roadway ID should be less than 0.100 mile or less than five percent of the RCI gross length value, ignoring any that are less than 0.009 miles. Additionally, if the deviation is greater than 0.100 mile and less than 1.00 percent of RCI, such a route will be removed from both the Summary Report and the Detailed Listing Report (unless the discrepancy can be resolved). If an alignment has a valid roadway ID number in RCI and is missing from the LRS, it is automatically placed in the selection criteria list. This criteria does not consider roadway IDs with RDSTATUS of 01, 04, 05, or 10.

### 6.1.4 Exclusion Status of Sections

Within the Detailed Listing Report, there is a column with a header of “EXC,” which indicates “excluded from the Summary Report.” If any roadway ID has an entry of “E” in this column, it means that the Summary Report for the County/District will not include the roadway ID until such time that its excluded status is rescinded. The result of being categorized as “excluded” is that the District is not held accountable grade-wise for that roadway ID until the data in the “COMMENTS” column are cleared up. Exclusions must be reapproved at least once every six months to maintain an excluded status. Attaining an “excluded” status is based upon mutually agreed factors between the Districts and the LRS Coordinator. The most commonly used factors are:

- Unavailability of newer aerials.
- Inability to field inventory due to construction.



- Inability to research or gather spatial reference.
- Inability to resolve the factors causing the discrepancy by Central Office or District involved.

### **6.1.5 Delivered Data File Format and Other Specifications**

GPS or other field data shall be collected to capture the center of the roadbed, which is measured from the outside edge of pavement to the outside edge of pavement of the through lanes. For some field situations, the GPS user may need to use an offset to capture the center of the roadbed.

For the purpose of reference/inclusion in the FDOT LRS, collected data should be provided in shapefile format in UTM17N projection. A map in pdf format is also sufficient in most cases.

## **6.2 RCI/LRS Package Process**

The TDA Office developed the RCI/LRS Package Process to aid the Districts in recording all revisions, updates, and modifications to roads in the RCI and LRS. This process facilitates the requirement that Districts send revisions to TDA Office through the MyFloridaLRS application, which will allow the TDA Office to track and complete changes in a timely manner.

RCI changes that require an RCI/LRS Package include:

- Add a new Roadway ID.
- Delete a Roadway ID.
- Inactivate a Roadway ID.
- Lengthen or shorten a Roadway ID.
- Changes to Overall Status, Governmental Jurisdiction, or any other information field on the RCI View/Update/Delete (V/U/D) screen except the Overall Description and General Compass Direction.

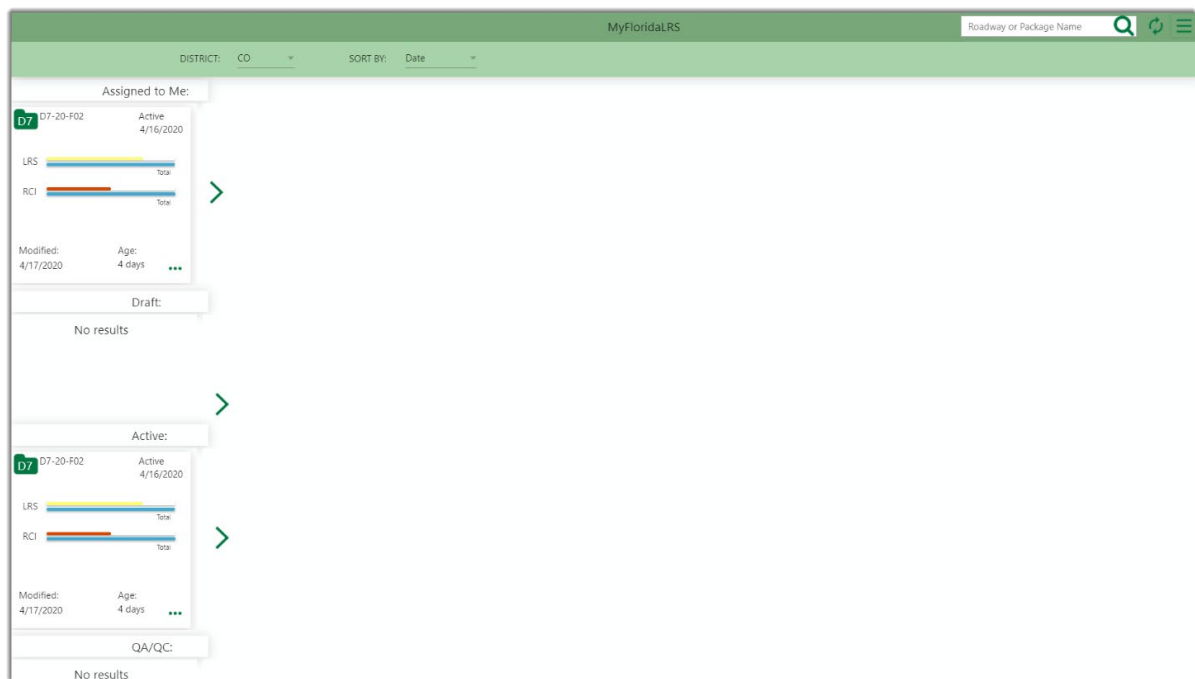
### **6.2.1 MyFloridaLRS Application**

The MyFloridaLRS application was developed to assist the Districts with RCI/LRS package submittal and to allow the Districts to track where the package currently is in the process. The MyFloridaLRS application can be found at the link below:

<https://tdaappsprod.dot.state.fl.us/prv/myflrls/> (Opens in Google Chrome)

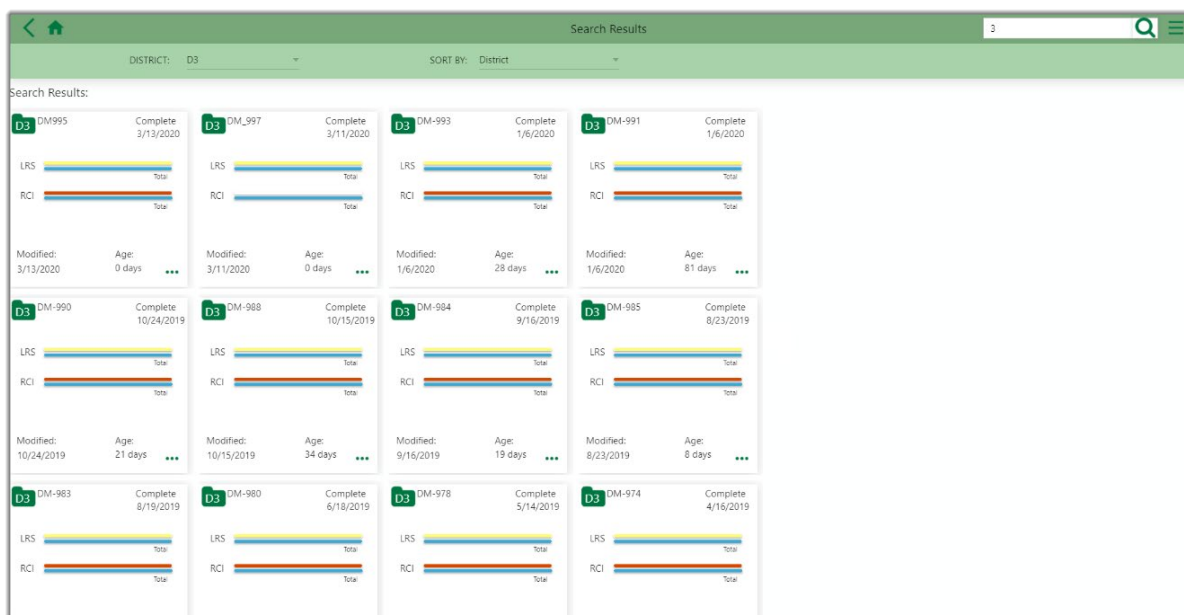


**FIGURE 6.3 | MYFLORIDALRS APPLICATION**



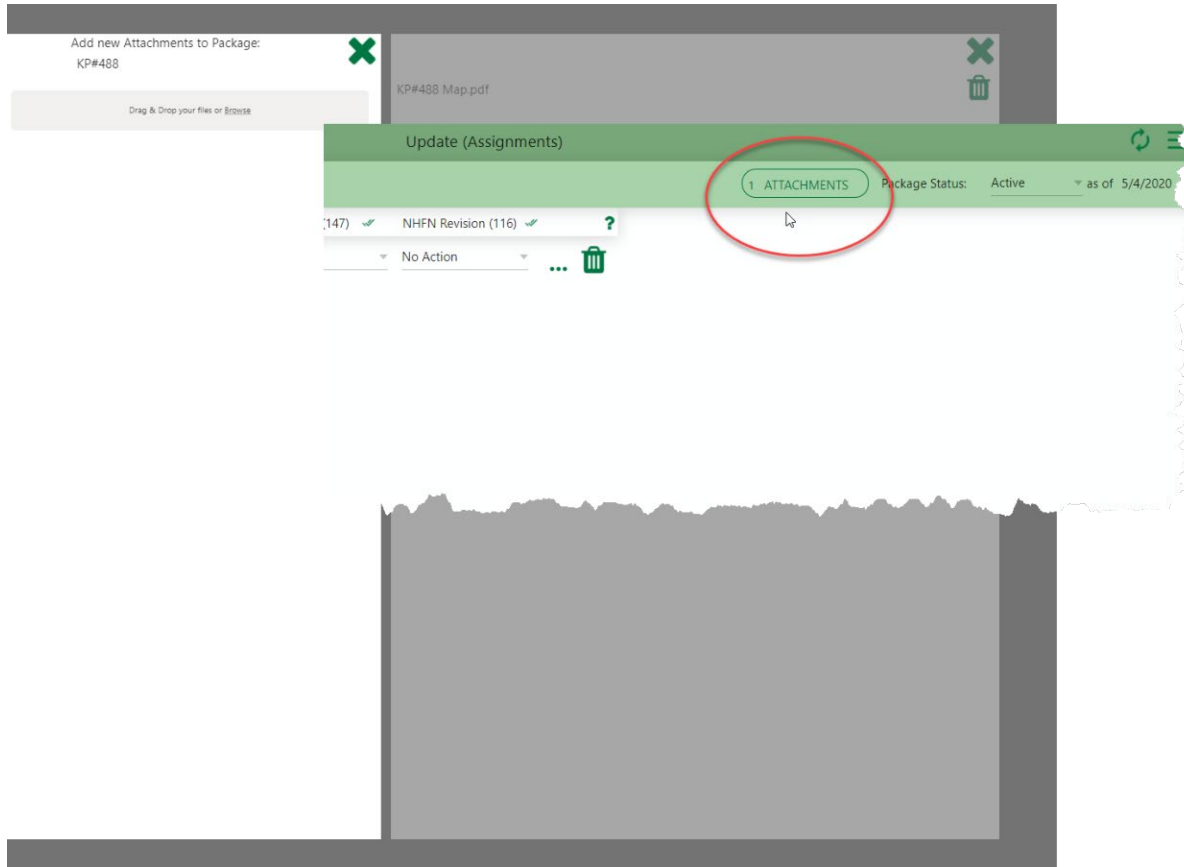
The Search function allows the user to search by a roadway, package number, or District.

**FIGURE 6.4 | SEARCH FUNCTION OF MYFLORIDALRS APPLICATION**



The attachments link allows the user to upload documents in multiple formats for use in processing the package. These formats include: .pdf, .docx, and .shp (in UTM17N).

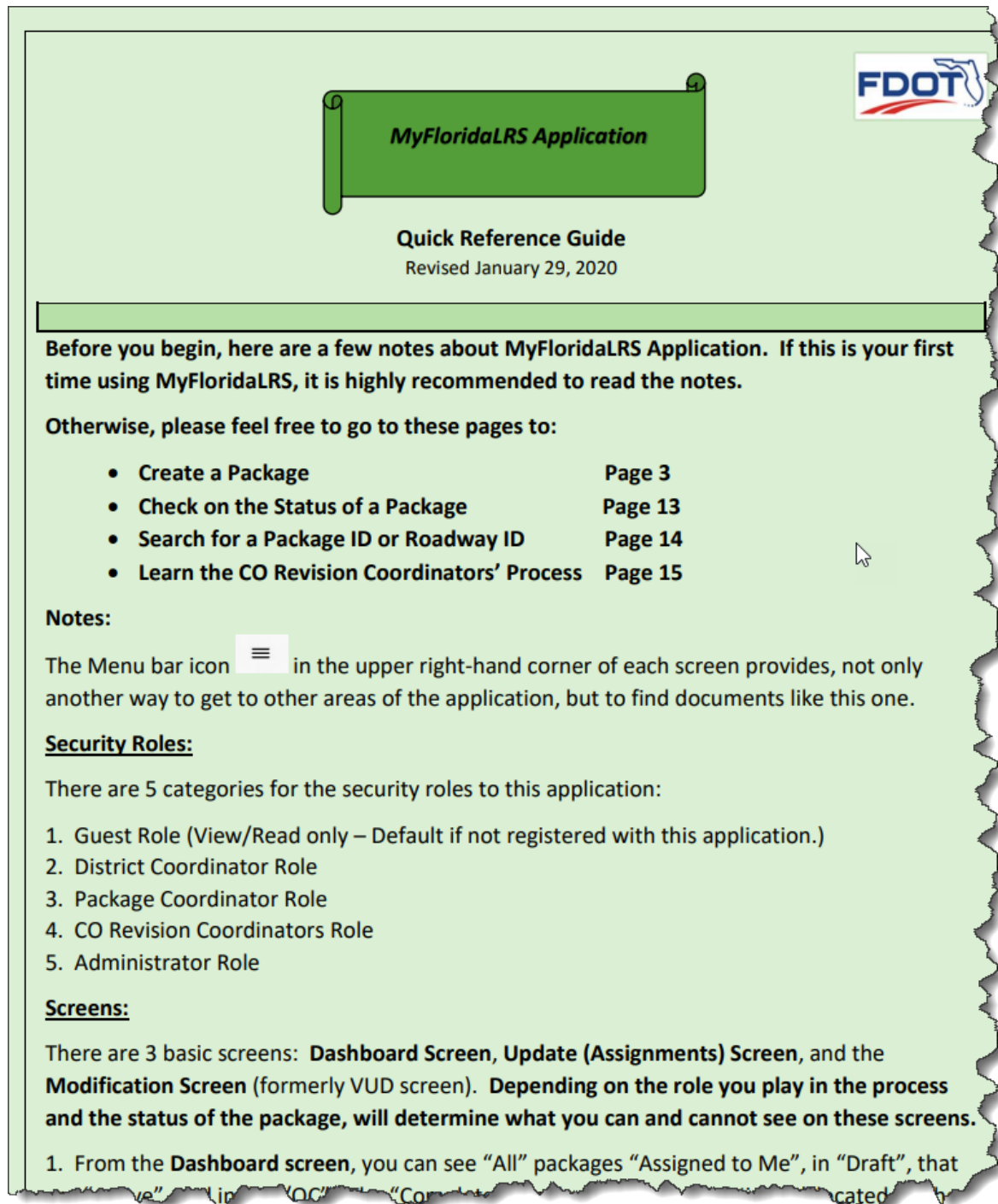
**FIGURE 6.5 | ATTACHMENT FUNCTION OF MYFLORIDALRS APPLICATION**



The Quick Reference Guide walks the user through the package process steps and can be accessed from the link below:

[https://tdaappsprod.dot.state.fl.us/prv/myflirs\\_attachments/MyFloridaLRS\\_QuickRefGuide.pdf](https://tdaappsprod.dot.state.fl.us/prv/myflirs_attachments/MyFloridaLRS_QuickRefGuide.pdf) (Opens in Google Chrome)

**FIGURE 6.6 | QUICK REFERENCE GUIDE OF MYFLORIDALRS APPLICATION**



All questions regarding the MyFloridaLRS Application should be directed to: [CO-MYFLLRS@dot.state.fl.us](mailto:CO-MYFLLRS@dot.state.fl.us).

### 6.2.2 RCI/LRS Package Checklist

The RCI/LRS Package Checklist details the required information from the Districts to assist the TDA Office in package processing. This checklist ensures that each District sends packages with the essential information required by the TDA Office to effectively revise both the RCI and the LRS.

Please limit the number of roadways to 15 per package submittal so the TDA Office can process submissions in a timely manner.

- Review the LRS first before submitting GIS roadway updates to the TDA Office.
- Make sure all information is complete on the Modification screen when creating a new roadway ID.
- Make sure that the Proposed side is filled out on the Modification screen when modifying an existing roadway.
- Include additional instructions, if necessary, in the comment fields on the Modification screen.
- Review Feature 112 and include appropriate paperwork for road transfers or add/deletion of SHS mileage is included.
- Shorten all features in RCI before submitting to Central Office.
  - If shortening a roadway, run a Propose New Roadway Section Boundaries report in RCI to verify that all Features have been shortened before requesting a length change. Also, remember that RCI automatically adjusts the net length once the gross length and Feature 140 have been corrected.
- Ensure all spatial data is in UTM17N; if no data files are needed, a location map is sufficient.
- Review and address Features 140 and 141 for exceptions on roadways to be updated in the RCI/LRS.
- Notify District Maintenance and Central Safety Office of RCI data updates or deletions to Features 251, 326, 330, and 331.
- Include requested updates, creations, or deletions to Feature 147—Strategic Intermodal Systems.

## 6.3 Other LRS/RCI Data Resources and Tools

The following GIS programs and associated products are used with RCI:

- IView.
- Florida Traffic Online.
- Data Download Tool.
- Data Library Tool for ArcMap.

- GIS Application Manager for ArcMap.
- Compass Direction Extension for ArcMap.
- Curvature Extension for ArcMap.
- Intersection Direction Tools for ArcMap.

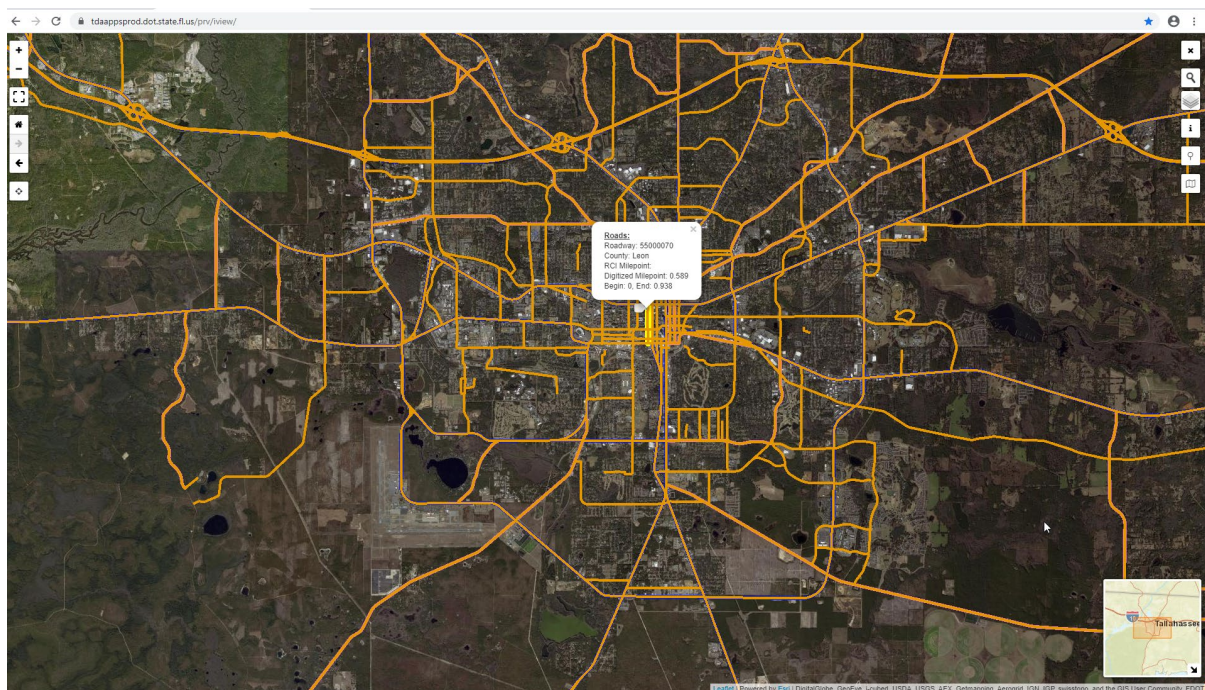
These programs add functionality to the use of RCI and its output. Various user guides and instruction manuals present guidance for these programs, but they are described briefly in this handbook. For additional information please visit the website: <https://www.fdot.gov/statistics/gis/default.shtm>.

### 6.3.1 IView

IView is a map-based web application designed to provide linear referencing functionality to support agency data collection and verification. It contains the three official agency linear referencing systems (LRS routes, rail, and SUNTrail). “Identify milepoint” and “zoom to milepoint” tools facilitate identifying and verifying milepoint locations along an LRS. In addition, a user can select and label a number of RCI layers and choose from a variety of background basemaps provided by ESRI. These background layers include imagery.

The site can be accessed here: <https://tdaappsprod.dot.state.fl.us/prv/iview/>.

**FIGURE 6.7 | IVIEW**





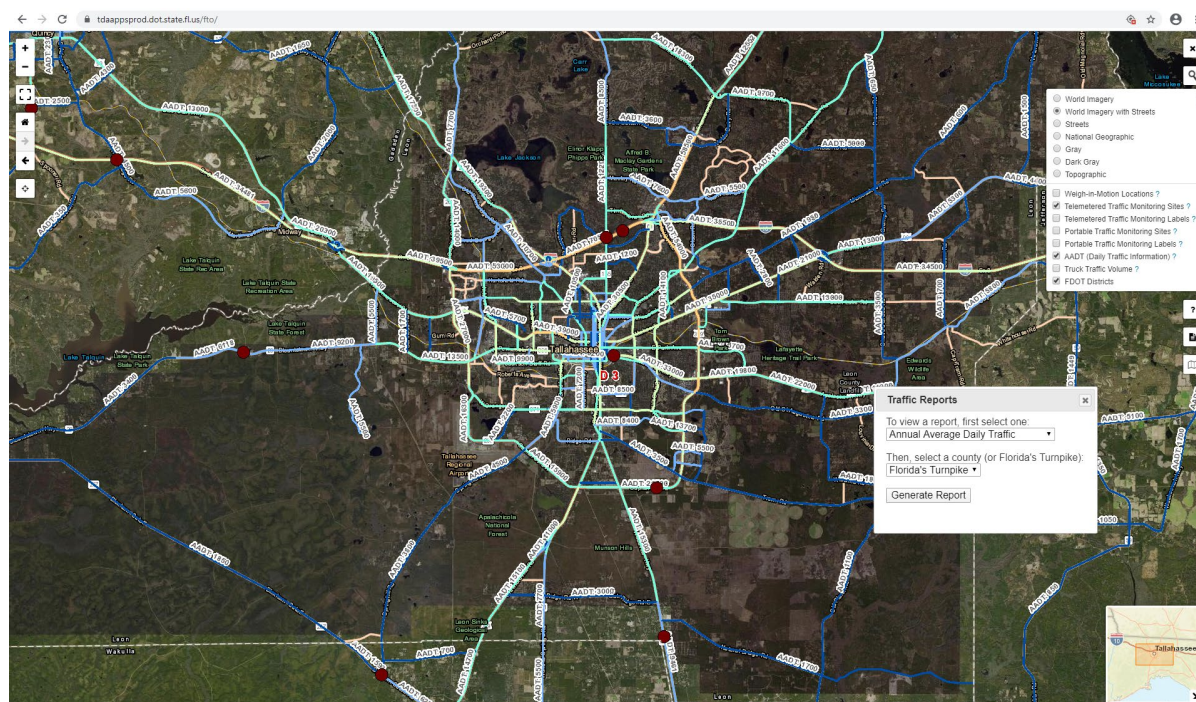
## 6.3.2 Florida Traffic Online

The Florida Traffic Online (FTO) site provides users with access to Florida traffic information over the Internet. Traffic information accessed through the site is released annually while other transportation data, such as the road networks displayed on the site, are updated monthly. The site provides the following traffic information:

- Annual Average Daily Traffic (AADT)—The total volume of traffic on a highway segment for one year, divided by the number of days in the year.
- Truck Volume—The total volume of truck traffic on a highway segment for one year. This number is determined as a percentage of AADT.
- Portable Traffic Monitoring Sites (PTMS)—A traffic monitoring site that has loops and/or axle sensors in the roadway with leads running back into a cabinet located on the shoulder.
- Telemetered Traffic Monitoring Sites (TTMS)—A continuous traffic monitoring site that transmits traffic data to the TDA Office via telephone or wireless communications.

The FTO site can be accessed here: <https://tdaappsprod.dot.state.fl.us/fto/>. (Opens in Google Chrome)

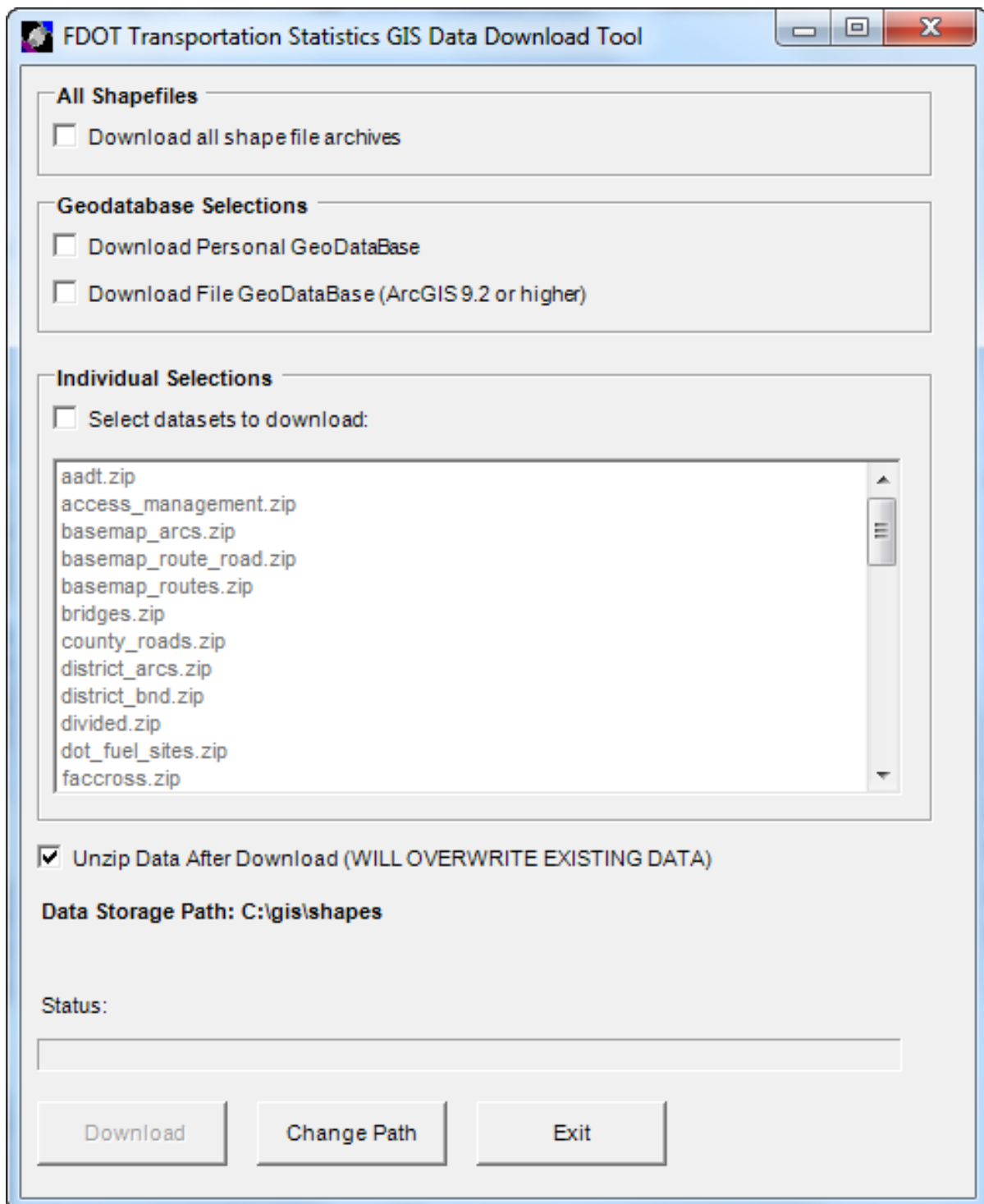
**FIGURE 6.8 | FLORIDA TRAFFIC ONLINE**



### 6.3.3 Data Download Tool

The Data Download Tool can automate the acquisition of TDA Office's GIS datasets. It will automatically download and unzip the TDA Office's GIS data to a local or network folder. Users can point the Data Library Tool to this location, ensuring that the most recent GIS datasets are used in all map documents.

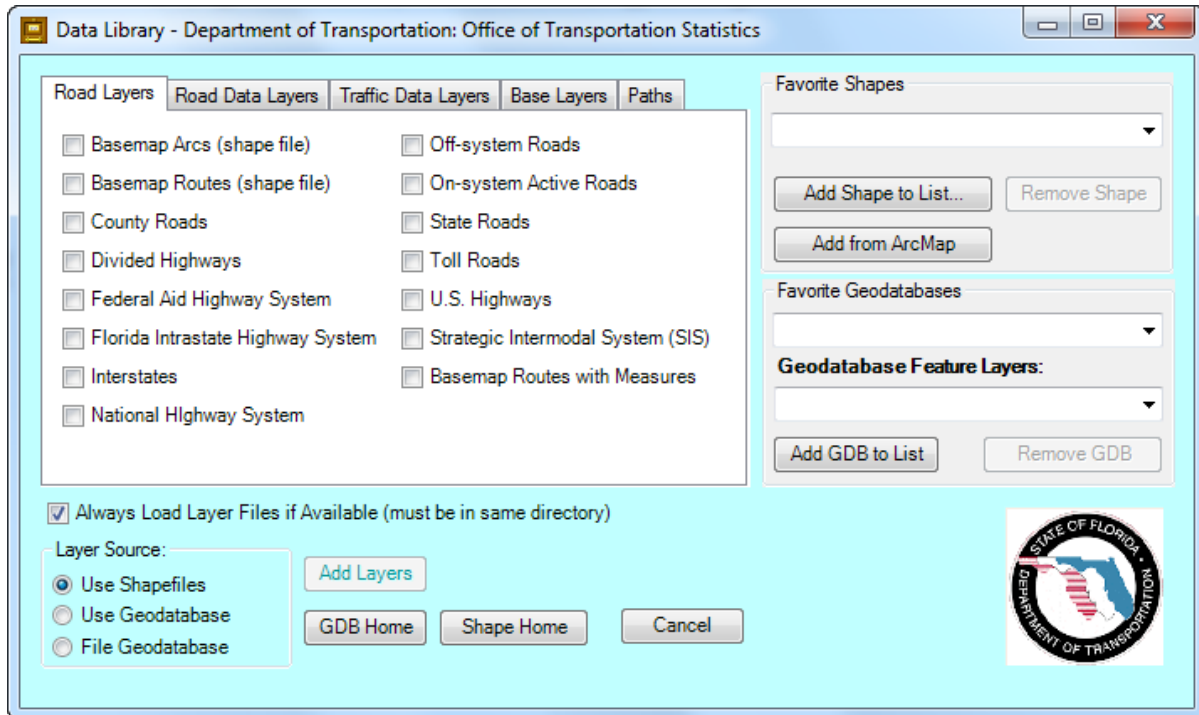
**FIGURE 6.9 | GIS DATA DOWNLOAD TOOL**



### 6.3.4 Data Library Tool for ArcMap

Users can reach the Data Library Tool for ArcMap through a button on the ArcMap interface that opens a form listing many of the available GIS vector layers. This makes it very easy to access and add data to an ArcMap document.

**FIGURE 6.10 | DATA LIBRARY TOOL FOR ARCMAP**

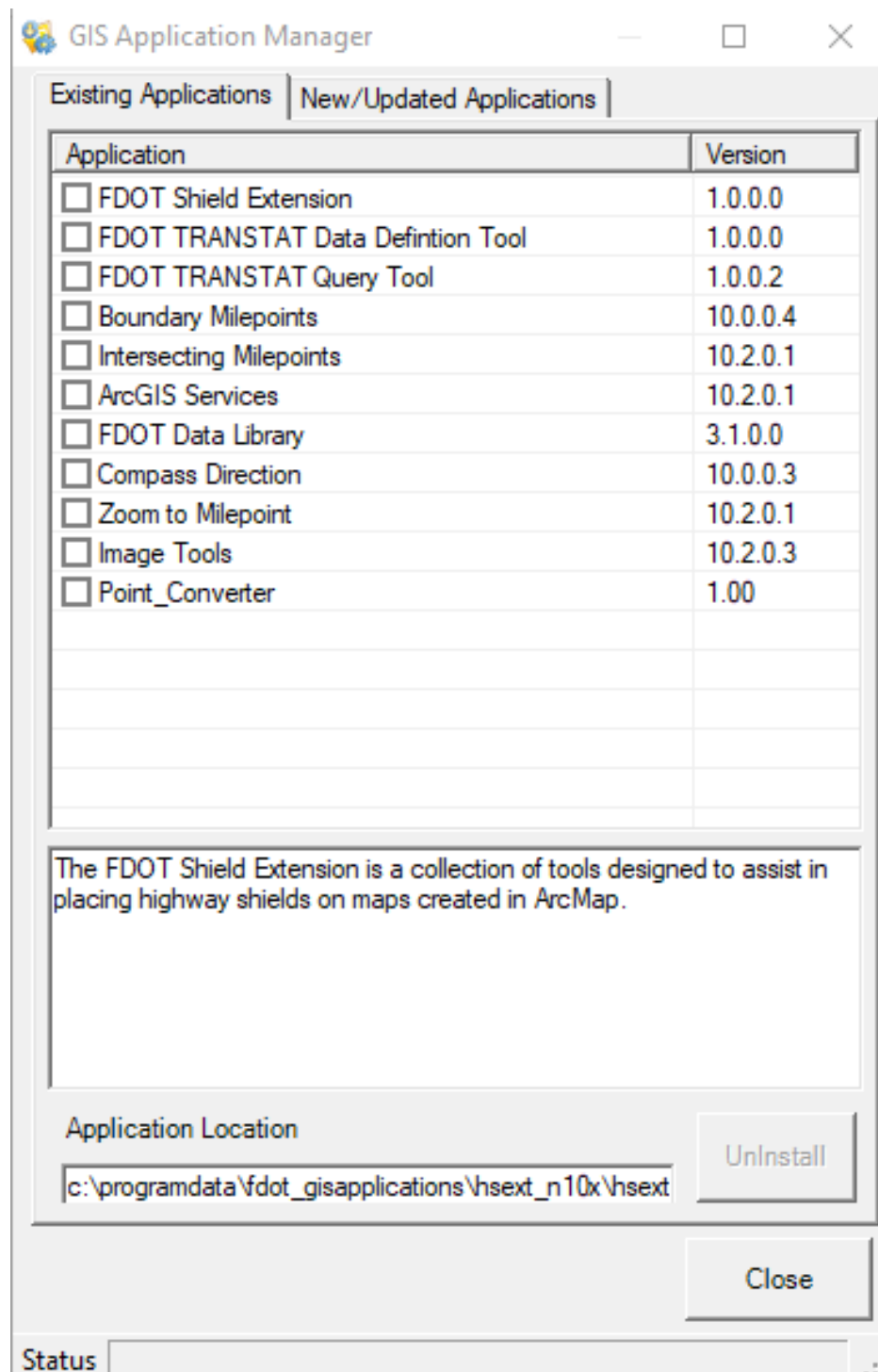




### 6.3.5 GIS Application Manager

The GIS Application Manager can easily install, uninstall, and update the various GIS customizations provided by the TDA Office. This desktop application can install the GIS customizations and an ArcMap extension used to alert users about new or updated applications.

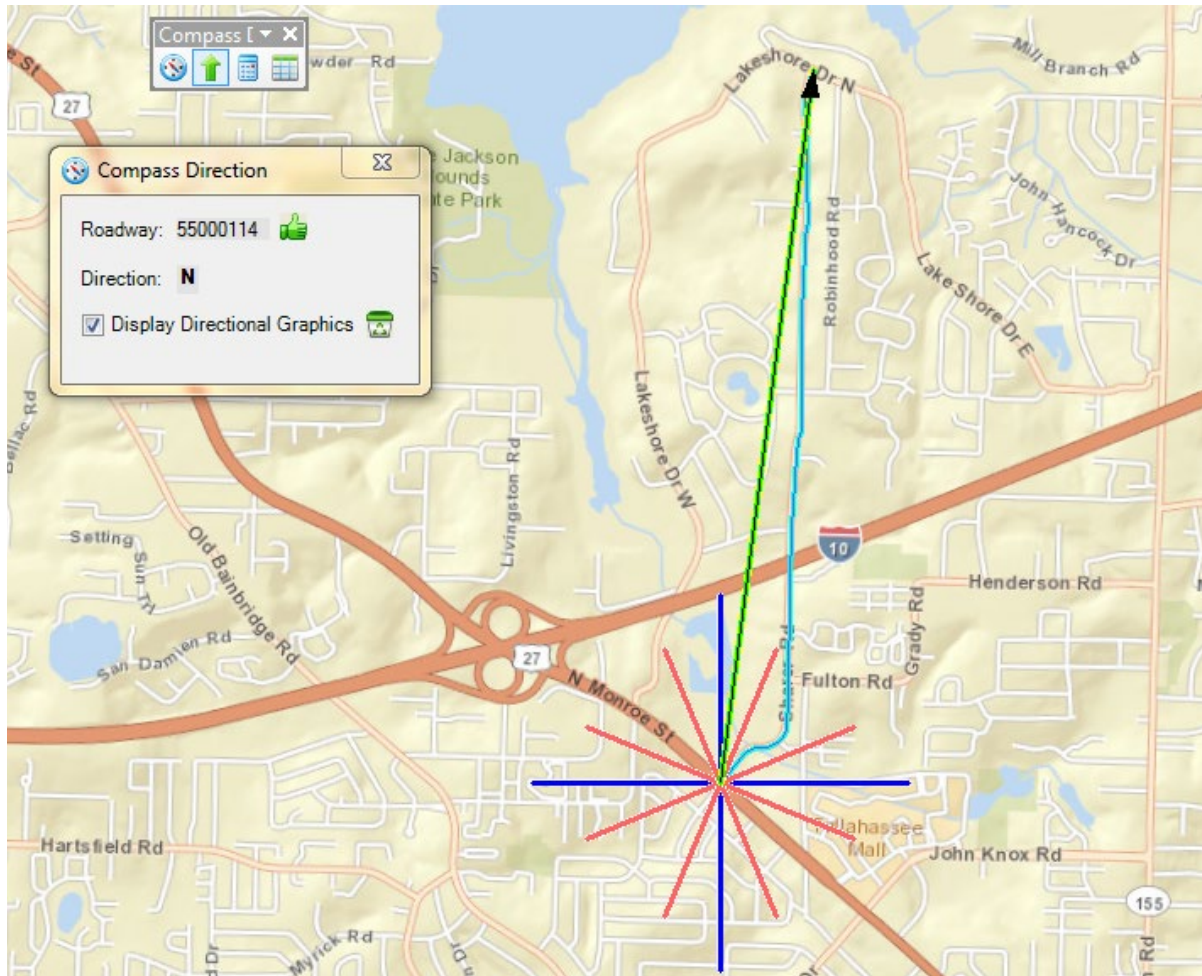
**FIGURE 6.11 | GIS APPLICATION MANAGER**



### 6.3.6 Compass Direction Extension for ArcMap

The Compass Direction Extension can be used to derive the compass direction for any roadway ID in the TDA LRS (basemap\_route\_road.shp).

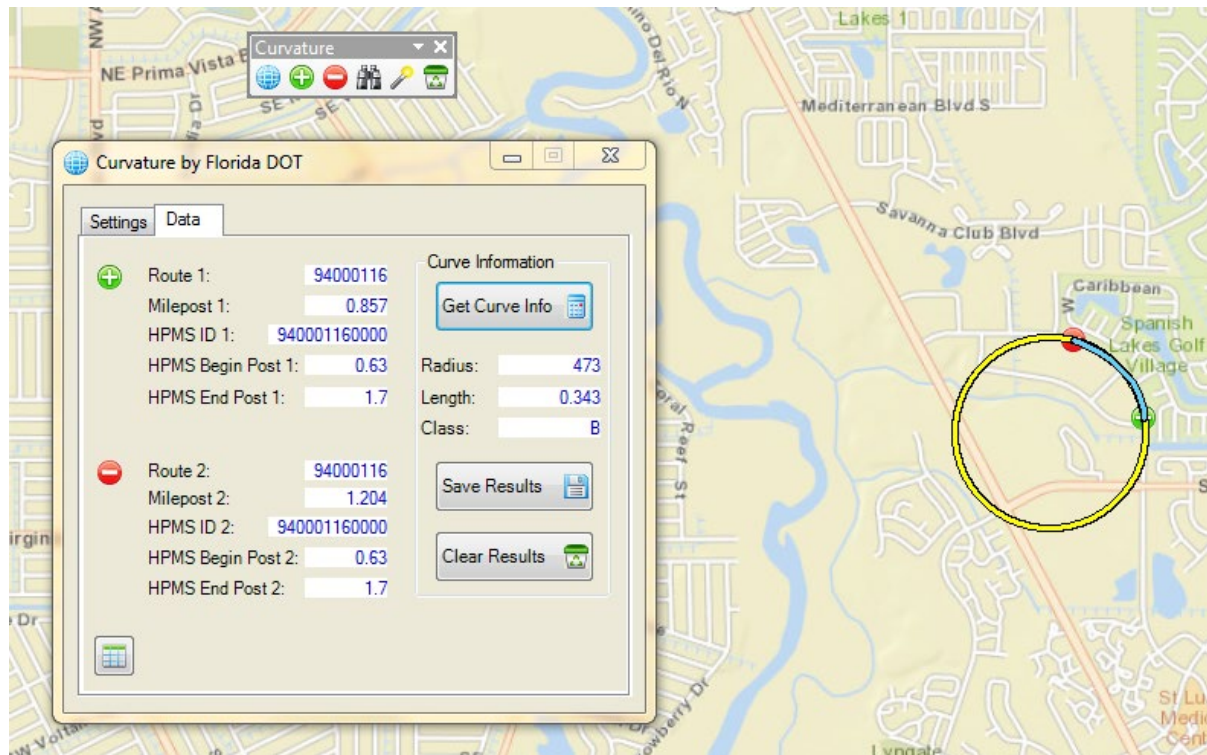
**FIGURE 6.12 | COMPASS DIRECTION EXTENSION FOR ARCMAP**



### 6.3.7 Curvature Extension for ArcMap

The Curvature Extension for ArcMap provides users with custom functionality to measure and classify curves within a GIS-based route system (e.g., feature class/shapefile with or without measures). Curves are measured based on user input of the start and end points of the curve. The classification of the curve (A–F) is derived automatically by the application, eliminating any guesswork about a curve's classification. The Curvature Extension was originally used to measure and classify curves along HPMS samples, but it can help users classify curves outside of the world of HPMS.

**FIGURE 6.13 | CURVATURE EXTENSION FOR ARCMAP**

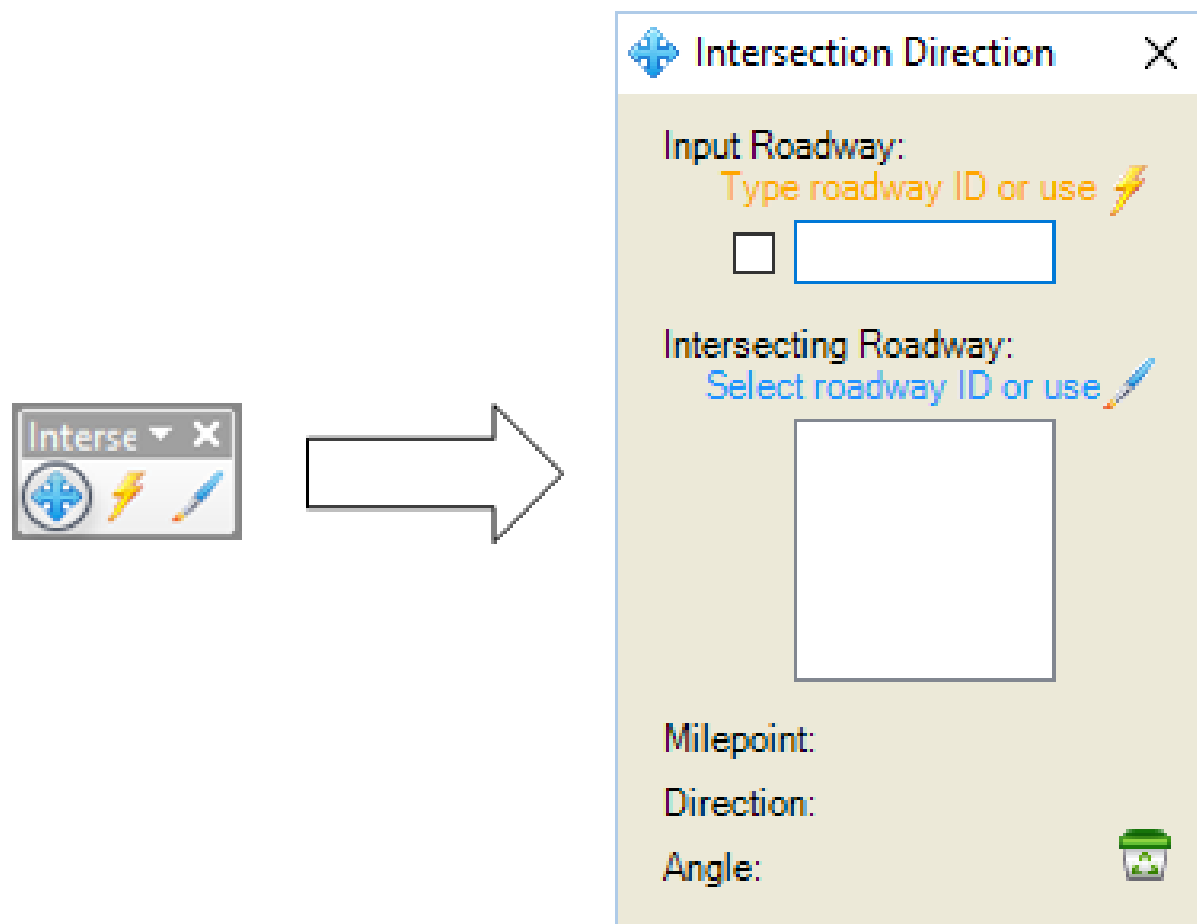


### 6.3.8 Intersection Direction Tools

For any given roadway, the Intersection Direction Tools derive the angle of an intersecting roadway and identify the corresponding intersection code, based on the angle and the side of the intersecting roadway, and the milepoint of the intersection.

This information is used in support of Feature 251—Intersections, characteristic INTSDIRx (with "x" being the intersection code) in RCI.

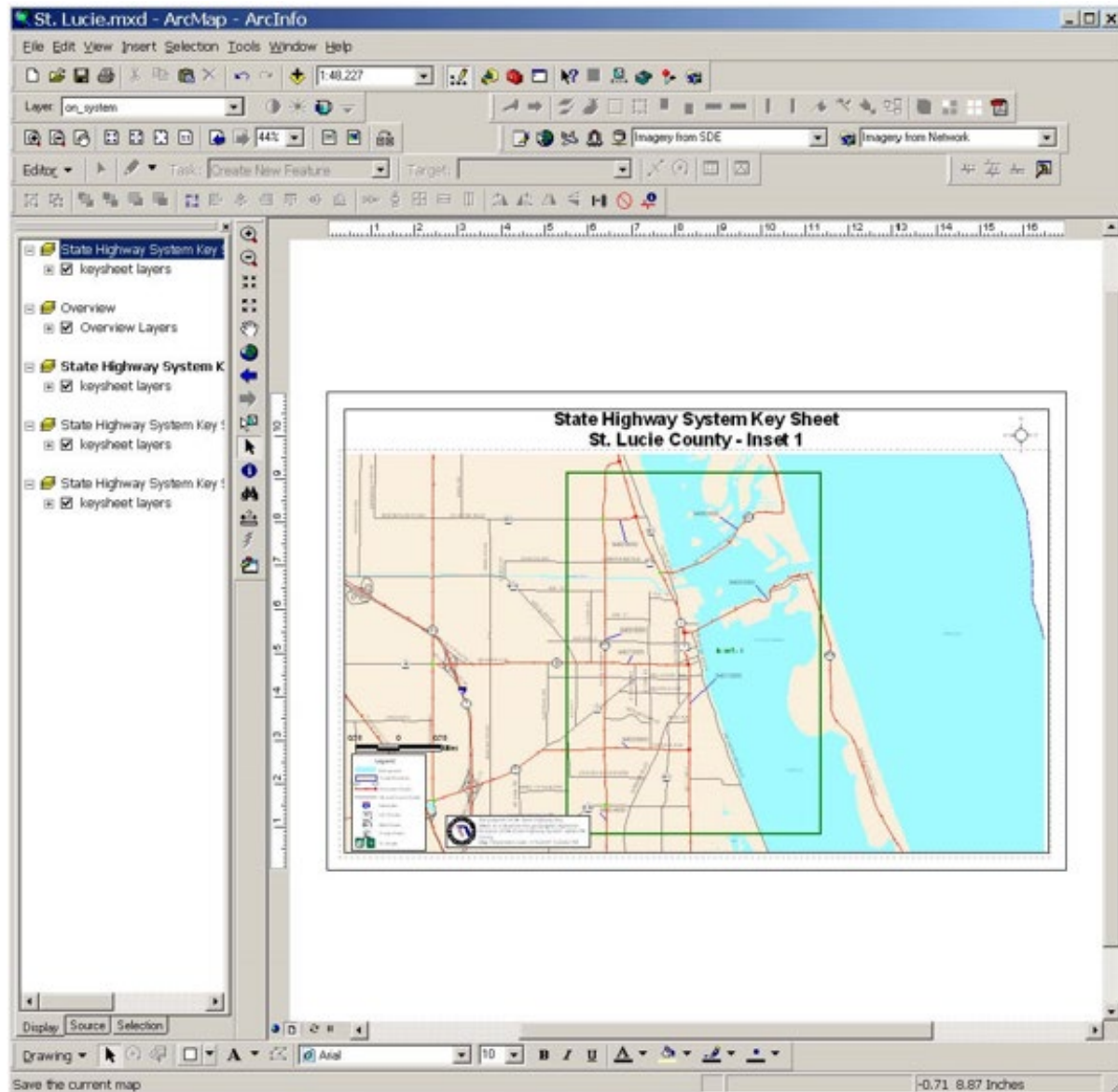
**FIGURE 6.14 | INTERSECTION DIRECTION TOOLS**



### 6.3.9 County Section Number Key Sheets

The County Section Number Key Sheet extension allows the user to create custom key sheet insets in accordance with the General Interest Roadway Data (GIRD) and MAP-21.

**FIGURE 6.15 | COUNTY SECTION NUMBER KEY SHEET EXTENSION**



For more information on the County Section Number Key Sheets, please visit the following link:  
<https://www.fdot.gov/statistics/sld.shtm>



## 6.4 All Roads Network of Linear Referenced Data (ARNOLD)

### 6.4.1 Overview of ARNOLD Dataset

In 2012, the FHWA expanded the HPMS' reporting requirements, mandating that state DOTs submit an LRS that includes all public roads. This requirement is known as the "All Roads Network of Linear Referenced Data" (ARNOLD), where all state DOTs are responsible for maintaining a geospatial dataset and associated attributes on all roads open to public travel. This dataset includes road centerline geometry, basic road attributes, address ranges, LRS control, and network topology (Table 6.1). The following sections give a brief overview of each task associated with the creation and submission of the ARNOLD dataset to the FHWA as part of the yearly HPMS submission. Detailed workflows for each task are documented separately and can be requested from the staff member who oversees the creation of the ARNOLD dataset.

**TABLE 6.1 | FLORIDA HIGHWAY ADMINISTRATION NETWORK REQUIREMENTS FOR ARNOLD**

Road Centerline Geometry	Road Centerline Attributes	Street Addresses	Linear Control	Network/Linear Topology
<ul style="list-style-type: none"> <li>• All Public and Private Roads</li> <li>• Frontage Roads</li> <li>• Ramps</li> <li>• Traffic Circles</li> <li>• Dual Carriageway</li> <li>• Update Cycle: certified annually</li> <li>• 1:5,000 scale</li> <li>• WGA 84 Coordinates</li> </ul>	<ul style="list-style-type: none"> <li>• Persistent Road ID number</li> <li>• Road/Street Name</li> <li>• Functional Class</li> <li>• Year</li> <li>• State (FL)</li> </ul>	<ul style="list-style-type: none"> <li>• Right side/Left side Address ranges</li> </ul>	<ul style="list-style-type: none"> <li>• Linear precision: 0.001 miles</li> <li>• Centerline Mileage Begin/End accuracy: 0.001 miles</li> </ul>	<ul style="list-style-type: none"> <li>• Common topology for road network models</li> </ul>

FDOT maintains an LRS driven by the RCI, composed of arcs and routes that geographically represent specific roadways in the RCI. FDOT would like to maintain their current LRS and RCI datasets while also supporting the ARNOLD. The ARNOLD network is compiled from two primary sources: FDOT's LRS and Census TIGER files. The TIGER data is used primarily for local roads. Secondary geospatial datasets, such as Parcel data, Florida Land Managed Areas, and aerial imagery, are used to complete and verify attributes and geometry (Table 6.2).

### 6.4.2 ARNOLD Data Creation and Process Overview

The creation of the ARNOLD dataset requires the following tasks:

- Task 1: Remove all overlaps from the TIGER dataset.
- Task 2: Flag line segments in the TIGER dataset that are already represented in the RCI LRS/Arcs Dataset.

- Task 3: Format Road Names to United States Postal Service (USPS) Standards.
- Task 4: Attribute HPMS to local roads (add attribute values represented in Table 6.2). Following HPMS fields are added and computed for the local roads dataset: YEAR\_RECORD, F\_SYSTEM, SOURCE\_AGENCY, FACILITY\_TYPE, OWNERSHIP, and STATE CODE.
- Task 5: Create Unique Roadway IDs. Local routes were assigned new roadway IDs according to the following format: the first two digits are the county code, followed by “L,” and then followed by the street name. Functionally continuous road segments within the same county that share a street name were assigned the same Route ID. Additionally, since Route IDs must be unique for roadways that are not contiguous but have the same street name, a number was assigned at the end of the Route ID to distinguish it from other roadways of the same name (01\_L\_Main St\_1 vs. 01\_L Main St\_2).
- Task 6: Create, quality check, and enhance Local Roads Topology.
- Task 7: Prepare Non-Routed RCI Arcs that are not included in RCI LRS (Dual Alignments, Connectors, Ramps).
- Task 8: Create routes and quality control for M-Value and Topology Errors.
- Task 9: Prepare ARNOLD dataset for HPMS submittal. Export the final ARNOLD dataset to a shapefile format and the attribute table as a CSV. These datasets are sent to the HPMS Coordinator on April 15 of each year, who then uploads them and checks for errors or inconsistencies using the HPMS upload software.

Yearly updates repeat these tasks with minor variations. Information on detailed workflows can be provided upon request.

**TABLE 6.2 | ARNOLD DATA MODEL WITH FHWA REQUIRED ATTRIBUTES**

Required ARNOLD Fields	Description
Route_ID	Route Identifier (up to 120 alphanumeric characters). Must be unique within the state.
Road Name	Road name
Functional Classification	FHWA-approved functional class
Ownership	Administrative Ownership
Facility Type	Operational characteristic of the roadway
State Code	2-digit FIPS code for Florida
Year_Record	The year (4 digits) that the data represents
Source	Source agency providing the data
Geometry	Linework (shape, PolylineM) with LRS measures

### 6.4.3 *Integrating Yearly U.S. Census TIGER Data and RCI LRS Updates*

FDOT conducts ARNOLD updates once a year when the U.S. Census Bureau publishes the newest set of TIGER data. FDOT compares raw TIGER datasets (e.g., 2016 versus 2017) against each other to identify new/updated TIGER features. After identifying these features, a series of automated steps are taken to attribute and topologically connect and replace these features in the previous year's local dataset. The tasks summarized above are used to incorporate the updated TIGER features. Additionally, any changes to the RCI/LRS are incorporated into the ARNOLD dataset after the snapshot is taken at the end of the year (December 31) for the HPMS submittal.

### 6.4.4 *ARNOLD Update Schedule*

- Fall of each year: The U.S. Census Bureau releases an updated version of the TIGER data. Release dates are not consistent and have occurred between the months of August and October.
- December 31 of each year: FDOT takes a snapshot of the RCI Arcs and LRS for the HPMS submittal and incorporates yearly RCI updates into the ARNOLD dataset.
- April 15 of each year: Submit the updated ARNOLD dataset to the HPMS Coordinator for review and final submission.
- June 15 of each year: Final HPMS submission to FHWA is due.



# CHAPTER 7

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## RCI FEATURES & CHARACTERISTICS





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UNDPASNO   Underpass Number .....	7-253
FACCROSS   Facility Crossed .....	7-254
Feature 271 <i>Guardrail</i> .....	7-255
BARRWALL   Barrier Wall Length .....	7-255
DBLGRAIL   Double Face Guardrail Length .....	7-256
SPCGRAIL   Miscellaneous Guardrail Length .....	7-256
STDGRAIL   Standard Guardrail Length .....	7-257
Feature 272 <i>Fencing</i> .....	7-258
CHNLKFCS   Number of Chain Link Fences .....	7-258
MISCFCS   Length of Miscellaneous Fences .....	7-259
OTHERFCS   Number of Other Types of Fences .....	7-260
WOVENFCS   Number of Woven Wire Fences (aka Hog Wire) .....	7-260
Feature 273 <i>Cable Barriers</i> .....	7-261
CABLRTY   Cable Barrier Type .....	7-261
CABLWIRE   Number of Cable Wires .....	7-262
Feature 275 <i>Miscellaneous Concrete Structures</i> .....	7-263
NOISBARR   Noise Barrier Wall .....	7-263
RETWALL   Retaining Wall Length .....	7-264
SEAWALL   Seawall Length .....	7-264
SLOPEPAV   Slope Paving Area Concrete .....	7-265
SLOPERIP   Slope Paving Area Rip-Rap .....	7-266
Feature 311 <i>Speed Limits</i> .....	7-267
DTESZAPP   Date Speed Zone Approved .....	7-267
DTESZIMP   Date Speed Zone Implemented .....	7-267
MAXSPEED   Maximum Speed Limit .....	7-268
MINSPEED   Minimum Speed Limit .....	7-268
Feature 312 <i>Turning Restrictions</i> .....	7-269
DTETMAPP   Date Turning Movement Approved .....	7-269
DTETMIMP   Date Turning Movement Implemented .....	7-269

LMTRSTRC   Limited Turn Restriction Time .....	7-269
TURNMOVE   Turning Movement Restriction .....	7-270
Feature 313 <i>Parking Restrictions</i> .....	7-272
DTEPKAPP   Date Parking Approved .....	7-272
DTEPKIMP   Date Parking Restriction Implemented .....	7-272
PKRSTIME   Parking Restriction Time .....	7-272
TYPEPARK   Type of Roadway Parking.....	7-273
Feature 315 <i>TSMO Projects (Pending Approval)</i> .....	7-274
TSMOPRDT   Date Active (or Potentially) (Pending Approval) .....	7-274
TSMOPRCD   TSM&O Project Code (Pending Approval) .....	7-274
Feature 320 <i>Mile Marker Signs</i> .....	7-275
MILEMARK   Mile Marker Sign .....	7-275
Feature 322 <i>Signals</i> .....	7-276
MAINTAGC   Maintaining Agency Name .....	7-276
SDESTRET   Side Street Name.....	7-276
SIGNALID   Signal Cabinet ID Number.....	7-276
SIGNALNC   Non-Counted Signal .....	7-277
SIGNALTY   Type of Traffic Signal.....	7-277
SIGOPDTE   Date Signal Operational .....	7-278
SIGSTRCT   Type of Signal Structure .....	7-278
TYPECABL   Type of Cable Connection.....	7-278
Feature 323 <i>School Zones</i> .....	7-279
SCHLNAME   School Name.....	7-279
SCHSPED   School Speed Zone.....	7-280
Feature 326 <i>Traffic Monitoring Sites</i> .....	7-281
TRFSTANO   Traffic Station Number .....	7-281
TRSTATYP   Traffic Station Type.....	7-282
Feature 330 <i>Traffic Flow Break Station</i> .....	7-283
FLWBRKID   Count Station Assigned to Break .....	7-283
TRFBRKCD   Traffic Break Code .....	7-284
Feature 331 <i>Traffic Flow Breaks</i> .....	7-285
AADTDATE   AADT Date .....	7-285
AADTTYPE   AADT Type.....	7-286
AVGDFACT   Roadway Section Average Directional Factor .....	7-287

AVGKFACT   K Factor .....	7-287
AVGTFACT   Roadway Section Average Truck Factor .....	7-289
SECTADT   Section Average ADT .....	7-290
Feature 341 <i>Lighting System</i> .....	7-291
LOCOWNER   Owner of Local Luminaries .....	7-291
NOALUMPOL   Number of Aluminum Poles .....	7-291
NOCONPOL   Number of Concrete Poles .....	7-292
NOFIBPOL   Number of Fiberglass Poles .....	7-292
NOHMSLUM   Number of High Mast Luminaries .....	7-292
NOLOCLUM   Number of Luminaries Under Local Agreement .....	7-292
NOOTHPOL   Number of High Mast Poles .....	7-293
NOSGMLUM   Number of Sign Luminarie .....	7-293
NOSTDLUM   Number of Standard Luminaries .....	7-293
NOSTLPOL   Number of Steel Poles (not to include high mast) .....	7-294
NOUDKLUM   Number of Underdeck Luminaries .....	7-294
NOWODPOL   Number of Wood Poles .....	7-294
Feature 360 <i>Toll Plazas</i> .....	7-295
TOLPLZNM   Toll Plaza Name .....	7-295
Feature 361 <i>Service Plazas</i> .....	7-297
SVCPLZNM   Service Plaza Name .....	7-297
Feature 411 <i>Roadside Mowing</i> .....	7-298
INMACHMW   Intermediate Machine Mowing .....	7-298
RDSDMOW   Roadside Mowable Area (Large) .....	7-299
SLOPEMOW   Slope Mowable Area .....	7-299
SMMACHMOW   Small Machine Mowing Area .....	7-300
Feature 412 <i>Weed Control</i> .....	7-301
HANDCUT   Hand Cut Area .....	7-301
MWEEDCTL   Mechanical Weed Control Area .....	7-302
OBSPRAY   Obstruction Spraying Area .....	7-302
Feature 413 <i>Landscape Area</i> .....	7-304
BOLDLAND   Bold Landscaping .....	7-305
LANDSCPE   Landscape Area .....	7-306
Feature 421 <i>Roadside Ditch Cleaning</i> .....	7-307
RDCANALS   Number of Roadside Canals .....	7-308

RDITEXCA   Number of Roadside Ditches (Excavator) .....	7-308
Feature 422 <i>Median Ditch Cleaning</i> .....	7-309
MDITHEXC   Number of Median Ditches (Excavator).....	7-309
MDITPAVE   Number of Median Ditches (Paved).....	7-310
MDITPIPE   Number of Median Ditches (Piped).....	7-310
Feature 431 <i>Parks And Rest Areas</i> .....	7-311
RSTAREAS   Number of Rest Areas without Facilities .....	7-311
RSTARFAC   Number of Rest Areas with Facilities .....	7-312
WAYSDEPKS   Number of Wayside Parks .....	7-312
WEIGHSTA   Number of Weigh Stations.....	7-313
WELCMSTA   Welcome Stations.....	7-313
Feature 443 <i>Delineators</i> .....	7-314
BRDELIN   Number of Bridge End Delineators .....	7-314
DELINEAT   Number of Guide Posts/Hazard Marker Delineators.....	7-315
Feature 451 <i>Striping</i> .....	7-317
DBLELINE   Number of Stripes   Double White or Yellow .....	7-317
SKIPLINE   Number of Stripes   Skip White or Yellow .....	7-318
SKIPWHBK   Number of Stripes   Skip White with Black.....	7-318
SNGLLINE   Number of Stripes   Single White or Yellow.....	7-319
Feature 452 <i>Symbols And Messages</i> .....	7-320
CRSHATCH   Crosshatching Area .....	7-320
CURBMARK   Curb Marking Area.....	7-321
PNTARROW   Number of Arrows.....	7-321
PNTLETTR   Number of Letters.....	7-322
RADIUSMK   Radius Marking Area .....	7-322
Feature 453 <i>Crosswalks</i> .....	7-324
CRWALK24   Number of 24-Foot Crosswalks.....	7-325
CRWALK36   Number of 36-Foot Crosswalks.....	7-325
CRWALK48   Number of 48-Foot Crosswalks.....	7-326
CRWALK60   Number of 60-Foot Crosswalks.....	7-326
CRWALK72   Number of 72-Foot Crosswalks.....	7-327
Feature 454 <i>Stop Bars</i> .....	7-328
STOPBR12   Number of 12-Foot Stop Bars.....	7-328
STOPBR18   Number of 18-Foot Stop Bars.....	7-329

STOPBR24   Number of 24-Foot Stop Bars.....	7-329
STOPBR36   Number of 36-Foot Stop Bars.....	7-330
STOPBR48   Number of 48-Foot Stop Bars.....	7-330
Feature 455 <i>Raised Pavement Markers</i> .....	7-331
PAVTMARK   Number of Raised Pavement Markers.....	7-331
Feature 460 <i>Attenuators</i> .....	7-333
ATCONDTN   Attenuator Condition .....	7-333
ATINSPEC   Attenuator Inspection Date .....	7-334
ATREPAIR   Attenuator Repair Datex .....	7-334
ATRMRS1   Attenuator Remarks   1 .....	7-334
ATRMRS2   Attenuator Remarks   2.....	7-335
ATTLOCCD   Attenuator Location Code .....	7-335
ATTMODEL   Attenuator Model Number.....	7-336
ATTYPECD   Attenuator Type .....	7-338
ATTYPINS   Attenuator Inspection Type .....	7-340
VEHDIRCD   General Vehicular Direction .....	7-340
Feature 480 <i>Highway Signs</i> .....	7-341
CANTSTR   Number of Cantilever Structures.....	7-342
CNPANG30   Number of Construct Panels Overhead and Ground Greater Than 30 Square Feet .....	7-342
GRPSTG30   Number of Ground Sign Posts Greater Than 30 Square Feet.....	7-343
GRPSTL30   Number of Ground Sign Posts Less Than 30 Square Feet.....	7-344
OVRLNSTR   Number of Full Overlane Structures.....	7-344
PANLLT30   Ground Panels Less Than 30 Square Feet .....	7-346
Feature 481 <i>Highway Maintenance Classification</i> .....	7-347
HIWMNCLS   Highway Maintenance Classification .....	7-347
Feature 801 <i>Trails</i> .....	7-348
SUNTRTYP   SUN Trail Type.....	7-348
SUNTRCOR   SUN Trail Corridor Name.....	7-350
Feature 901 <i>Rail Line Facility</i> .....	7-355
RRCLASST   Railroad Class Type .....	7-355
RRCONAME   Railroad Company Name.....	7-356
RRLINETP   Railroad Line Type.....	7-357
RSISFTPx   Railroad SIS Facility Type Level (x=1-9).....	7-358
RROUTEID   Railroad Route ID.....	7-359



## CHAPTER 7. RCI FEATURES & CHARACTERISTICS

# 7

This chapter identifies and defines the data found in the Roadway Characteristics Inventory (RCI). This chapter also provides basic guidelines and considerations to assist the RCI data collector. The features and characteristics in RCI reflect the roadway data of interest to the Florida Department of Transportation (FDOT).

## LOG OF CHANGES

Item	Date	Page(s)	Feature	Description
1	June 2021	7-14	112	Updated—FAHWYSYS—Description for code 6 changed from “STP” to “Surface Transportation Block Grant Program (STBG)”
2	June 2021	7-32	116	Removed the Feature in September 2019 and added back in June 2021
3	June 2021	7-35	117	Added new Feature
4	June 2021	7-41	118	Removed—obsolete characteristic—ATGRTYPE
5	June 2021	7-41	118	Removed—obsolete characteristic—HORALADQ
6	June 2021	7-41	118	Removed—obsolete characteristic—VRTALADQ
7	June 2021	7-41	118	Removed—obsolete characteristic—WIDEFEAS
8	June 2021	7-74	119	Updated code descriptions for TOLLTYPE
9	June 2021	7-89	120	Added new characteristic—DDIXOVR—Required for crossover area at diverging diamond interchanges
10	June 2021	7-91	121	Moved—PROFUNCL added under Feature 123
11	June 2021	7-94	122	Added new OWNAUTH codes—LYNX, NEFRTC, SFRTA, TBARTA. Obsoleted OCX. Removed NTA and BCEA.
12	June 2021	7-98	123	Added—PROFUNCL
13	June 2021	7-113	125	Removed—obsolete characteristic—LANDUSE
14	June 2021	7-149	212	Added definition—Through Lane Drop Off
15	June 2021	7-150	212	Added example—Through Lane Drop Off and T-Intersection
16	June 2021	7-154	213	Added reference—Feature 212 for Through Lane Drop Off
17	June 2021	7-155	213	Updated—AUXLNTP—Specify beginning location for code 6 and code 7—Merging
18	June 2021	7-164	213	Added example—Auxiliary lanes at a diverging diamond interchange.
19	June 2021	7-167	214	Added example—Outside Shoulders at a diverging diamond interchange
20	June 2021	7-167	214	Added clarification that Paved and Paved with Warning Device are to be coded separately
21	June 2021	7-189	216	Updated—SIDWLKWD —guidance for offset value for a meandering sidewalk; added example
22	June 2021	7-199	220	Updated—NCPTINT—How to Gather
23	June 2021	7-237	251	Added example—INTSDIRx at diverging diamond crossover intersections



Item	Date	Page(s)	Feature	Description
24	June 2021	7-241	252	Added new code—INTERCHG—code 10—Diverging Diamond
25	June 2021	7-249	257	Added clarification—CROVERLG—Items in crossover inventory are not limited to intersections
26	June 2021	7-281	326	Updated “Required for”—TRFSTANO and TRSTATYP
27	June 2021	7-334; 7-338	460	Updated—ATINSPEC and ATREPAIR—How to Gather. Added new codes—ATTYPECD—code 21—QuadGuard M10 and code 22—TAU-M.
28	June 2021	7-356	901	Removed—obsolete characteristic—RSISFIDx
29	June 2021		902	Removed—obsolete feature
30	June 2021		903	Removed—obsolete feature
31	Sept 2019	7-14	Feature Descriptions	Updated—Feature 112—to include NHS Date
32	Sept 2019	7-114	Feature Descriptions	Added—Feature 126—Context Classification
33	Sept 2019	7-16	112	Added—Feature 112—NHSDATE—NHS Approved Date
34	Sept 2019	7-30	115	Updated—SCENEDTE and SCENEEXT—How to gather and Special Situations
35	Sept 2019	7-43; 7-48; 7-51	118	Updated—ATGROTHR, ATGRSIG, & ATGRSTOP—How to gather, Special Situations, and Examples
36	Sept 2019	7-56	118	Updated—TURNLANL—Added example on U-Turn only turn bay
37	Sept 2019	7-61	118	Updated—SIT1500—Definition, How to gather, Special Situations, and Examples
38	Sept 2019	7-63	118	Updated—PEAKLANE—How to gather and codes
39	Sept 2019	7-65	118	Updated—WIDOBST_—Who uses, How to gather, Special Situations
40	Sept 2019	7-67	118	Updated—WIDPOTNL—How to gather, Special Situations, and Examples
41	Sept 2019		118	Obsoleted—ATGRTYPE
42	Sept 2019		118	Obsoleted—HORALADQ
43	Sept 2019		118	Obsoleted—VRTALADQ
44	Sept 2019		118	Obsoleted—WIDEFEAS
45	Sept 2019	7-73	119	Updated—RAMPFC—Added code 0—N/A for use on ramps that will not have a Federal category
46	Sept 2019	7-74	119	Updated—TOLLNAME—Added new codes and moved to Feature 122 from Feature 119
47	Sept 2019	7-74	119	Updated—TOLLCHGS—Added new code

Item	Date	Page(s)	Feature	Description
48	Sept 2019	7-74	119	Updated—TOLLTYPE—Added new code
49	Sept 2019	7-75	119	Updated—HOVNUMLN—Renamed to Number of Associated Managed Lanes and Updated Definition
50	Sept 2019	7-76	119	Updated—HOVTYPE—Renamed to Type of Associated Managed Lanes Operation and Updated Definition
51	Sept 2019	7-81	119	Updated—RIGDTHIK—How to gather in field, Corrected correlating SURFTYPE reference
52	Sept 2019	7-82	119	Updated—SURFACTP—Required for and Special Situations
53	Sept 2019	7-83; 7-84	119	Updated—YRIMPT and YRCONST—How to gather, Required for
54	Sept 2019		120	Removed—ROTARY—Roundabouts & Traffic Circles—Obsolete
55	Sept 2019	7-94	122	Updated—OWNAUTH—Contact, Definition and Added codes
56	Sept 2019	7-95	122	Updated—TOLLNAME—Added new codes and Moved to Feature 122 from Feature 119
57	Sept 2019	7-100	124	Updated—Feature 124—to include MPO Area
58	Sept 2019	7-104	124	Updated—PLACECD—0830-Hastings (dissolved), 0997-Islandia (dissolved), 0975-Indian Town (incorporated)
59	Sept 2019	7-114	126	Added—Preliminary Context Classification Feature and Characteristics
60	Sept 2019		144	Removed—FIHS removed obsolete code
61	Sept 2019		145	Removed—LOSSTDK removed obsolete code
62	Sept 2019	7-146	147	Updated—SISFCTPx codes and descriptions
63	Sept 2019	7-171	215	Updated—MDBARTYP updated imagery code descriptions
64	Sept 2019	7-174	215	Updated—RDMEDIAN—new code 35—Two-way Turn Median
65	Sept 2019	7-174	215	Removed—RDMEDIAN obsolete codes
66	Sept 2019	7-185	216	Updated—BIKSLTCD—Renamed to Bicycle Keyhole Lanes
67	Sept 2019	7-205	230	Updated—PAVECOND—Required for
68	Sept 2019	7-210	232	Updated—SURFLAYx—Added new codes
69	Sept 2019	7-213	233	Updated TYPEBASE—Added new codes
70	Sept 2019	7-218	241	Updated—PIPEYPE—Added code for PVC pipe
71	Sept 2019	7-268	311	Updated—MAXSPEED—Required for
72	Sept 2019	7-282	326	Added—TRSTATYP Inactive station type SLD symbol
73	Sept 2019	7-283	330	Updated—Required for all characteristics
74	Sept 2019	7-283	331	Updated—Required for all characteristics

Item	Date	Page(s)	Feature	Description
75	Sept 2019		351	Removed—MOTOROID removed obsolete code
76	Sept 2019	7-317	451	Updated—STRIPING definition/background
77	Sept 2019	7-323	452	Added—Airplane image for RADIUSMK
78	Sept 2019		456	Removed—Retroreflectivity Measurement removed obsolete codes
79	Sept 2019		457	Removed—Retroreflectivity Parameters removed obsolete codes
80	Sept 2019	7-338	460	Updated—ATTYPCD—Added new codes
81	Sept 2019	7-349	801	Updated code descriptions and Corridor Names
82	Aug 2017	7-42	118	Updated—LOADTDEV—HPMS Sample Type—Required for, How to gather, and Special Situations

## Introduction

Data in RCI is organized by features and characteristics. The data is recorded as it exists along a travelway.

**Travelways** consist of three types of modes currently in RCI: roadways, rails, or trails.

**Features** are a collection of related characteristics. An example is within Feature 215 Median; there are three characteristics: MDBARTYP, MEDWIDTH, and RDMEDIAN. Features assign unique aspects to their characteristic(s). For instance, Feature 215's type is length, therefore all of its characteristics are length. Similarly, features pass on other attributes like administrative type, classification, owning office, roadside, interlocking, and tying. These attributes are fully explained in the RCI User Manual.

**Characteristics** are the actual data component of RCI and each one is specifically created for a certain purpose. Characteristics issue specifications for data collection. Using Feature 215 as an example again, MEDWIDTH stands for median width. Its measurement unit is in feet. That means all measurements must be collected in feet. There also are minimum and maximum values that must be met in order to code the data into RCI. Other attributes include roadway side, offset, offset direction, data type, data length, and number of decimals, anchoring, and multiples. These attributes are fully explained in the RCI User Manual.

Features are assigned to sponsoring offices. Each owning office manages and is responsible for their feature(s). These are the owning offices:

Office Name	Also Known As	Formerly Called
Office of Maintenance	Maintenance	N/A
Freight and Multimodal Operations Office	FMO	Rail and Motor Carrier Operations Office (Rail)
Traffic Engineering and Operations Office	Traffic Operations	N/A
Transportation Data and Analytics Office	TDA	Transportation Statistics Office (TranStat) or Planning
Systems Implementation Office	SIO	Systems Planning Office (Systems Planning)
Roadway Design Office	Design	N/A

# Feature Descriptions (By Sponsoring Office)

As mentioned before there are sponsoring offices. However, that does not preclude data collection being carried out by a different office within the Districts or Central Office.

## *Office of Maintenance*

**Feature 137 Maintenance Area Boundary**—Records the limits of the responsible Maintenance Office unit cost center number.

**Feature 217 Sidewalks**—Records the limits of sidewalk data owned and maintained by the Department.

**Feature 241 Crossdrains**—Records the number of box culverts with openings less than 20 feet and crossdrain pipes.

**Feature 242 Storm Sewers**—Records the number of curb inlets, manholes, and catch basins.

**Feature 243 Off Roadway Areas**—Records the number of borrow pits, mitigation areas, retention areas, and sediment basins.

**Feature 245 Roadside Ditches**—Records the number and the length of the following types of ditches along the sides of the roadway: french drain, paved, storm sewer, and trunk line.

**Feature 248 Outfall Ditches**—Records the number and the length of the following types of ditches along the roadway: hand, hauled, paved, piped, and spread.

**Feature 256 Turnouts**—Records the number and average width of turnouts, paved/unpaved with or without pipe.

**Feature 257 Crossovers**—Records the number and the length of crossovers.

**Feature 271 Guardrail**—Records the number and length of standard guardrail, double face guardrail, barrier wall, and miscellaneous guardrail.

**Feature 272 Fencing**—Records the number and the length of chain link, woven wire, other types, and miscellaneous fences.

**Feature 273 Cable Barrier**—Records the number and the type of cable barrier along the roadway on the left side, right side, and in the median.

**Feature 275 Miscellaneous Concrete Structures**—Records the number and length of noise barrier wall, retaining wall, seawall, concrete slope, and rip-rap slope paving.

**Feature 341 Lighting System**—Records the number of aluminum poles, concrete poles, fiberglass poles, high mast luminaries, local luminaries, high mast poles, sign luminaries, standard luminaries, steel poles, under deck luminaries, and wood poles.

**Feature 411 Roadside Mowing**—Records the mowing acreage for intermediate machines, large machines, slopes, and small machines.

**Feature 412 Weed Control**—Records the acreage of hand cut, mechanical weed control, and obstruction spraying area.

**Feature 413 Landscape Area**—Records the acreage of the landscape area.

**Feature 421 Roadside Ditch Cleaning**—Records the number of roadside canals and ditches.

**Feature 422 Median Ditch Cleaning**—Records the number of median ditches that are either excavated, paved, or piped.

**Feature 431 Parks & Rest Areas**—Records the number of rest areas with or without facilities, wayside parks, weigh stations, and welcome stations.

**Feature 443 Delineators**—Records the number of bridge end delineators and guideposts or hazard marker delineators.

**Feature 451 Striping**—Records the number of double stripes and skip stripes by color.

**Feature 452 Symbols & Messages**—Records the crosshatching area, curb marking area, number of arrows, number of letters, and radius marking area.

**Feature 453 Crosswalks**—Records the number of crosswalks according to the crosswalk length.

**Feature 454 Stop Bars**—Records the number of stop bars according to the stop bar length.

**Feature 455 Raised Pavement Markers**—Records the number of raised pavement markers.

**Feature 460 Attenuators**—Records the attenuator condition, inspection date, repair date, remarks, location, model number, attenuator type, inspection type, and general vehicle direction.

**Feature 480 Highway Signs**—Records the number of cantilever structures, panels to construct all overhead signs and ground signs greater than 30 square feet, ground sign posts that support signs greater than 30 square feet, ground sign posts that support signs less than 30 square feet, full overlane structures, and panels to construct a ground sign less to 30 square feet.

**Feature 481 Highway Maintenance Classification**—Records the limits of the highway maintenance classification.

### *Traffic Engineering and Operations (Traffic Operations)*

**Feature 311 Speed Limits**—Records the limits of the maximum and minimum speed, the date approved and implemented.

**Feature 312 Turning Restrictions**—Records the limits of the limited time and turning movement restriction, date approved and implemented.

**Feature 313 Parking**—Records the limits of the parking restriction time, type of parking, date approved and implemented.

**Feature 322 Signals**—Records the location of the traffic signal types, non-counted signal types, signal cabinet ID number, side street name, date signal became operational, type of signal structure, type of cable connection, and the maintaining agency.

**Feature 323 School Zones**—Records the limits of the school speed zone and the associated school name.

## *Transportation Data and Analytics Office (TDA)*

**Feature 111 State Road System**—Records the limits of designation of the state road (SR) number, the secondary SR number, or county road (CR) number and secondary CR number on the roadway.

**Feature 112 Federal System**—Records the limits of designation of the federal highway system code, National Highway System (NHS) connector ID, Date added to NHS, old federal highway system, special systems, Strategic Highway Network (STRAHNET), and Moving Ahead for Progress in the 21<sup>st</sup> Century Act (MAP-21) on the roadway.

**Feature 113 AASHTO**—Records the limits of designation of the U.S. route number, secondary U.S. route number and interstate route on the roadway.

**Feature 114 Local System**—Records the limits of the local names along the roadway.

**Feature 115 Special Designations**—Records the Florida scenic highway roadway names with designation and extension information.

**Feature 117 FIPS Designated Boundaries** – Records the limits of the FIPS place code and urban area code.

**Feature 118 HPMS**—Records the data from the sample portion of the annual Highway Performance Monitoring System (HPMS) submittal to the Federal Highway Administration (FHWA).

**Feature 119 HPMS Universe**—Records the data from the universe portion of the annual HPMS submittal to the FHWA.

**Feature 120 Type of Road**—Records the limits of the route signing along the roadway and if the roadway is divided, undivided, or one-way.

**Feature 121 Functional Classification**—Records the limits of designation of the functional classification.

**Feature 123 Proposed Designations**—Records the limits of designation of the proposed functional classification awaiting approval.

**Feature 122 Facility Classification**—Records the limits of the owning authority, access control type, whether a toll exists and the name of the toll facility.

**Feature 124 Urban Classification**—Records the limits of the highway location code, census place code, urban area number, urban size, and the Metropolitan Planning Organization (MPO) area.

**Feature 125 Adjacent Land Classification**—Records the limits of the prevailing type of land use and the pavement roughness index.

**Feature 126 Context Classification**—Records the prevailing limits of context classification along the roadway, the date of the preliminary current and future context classification assigned.

**Feature 138 Roadway Realignment**—Records the completion date, section identification, limits of the new alignment of the roadway.

**Feature 139 New Alignment**—This feature automatically generates from the data recorded in Feature 138, cross referencing the limits of the associated old roadway alignment.

**Feature 140 Section Status Exception**—Records the date the roadway was officially added to or removed from the State Highway System (SHS) and the segment status.

**Feature 141 Stationing Exceptions**—Records the limits and roadway ID of the exception.

**Feature 142 Managed Lanes**—Records the limits, roadway ID, and geometric data of the managed lanes and the associated mainline. There also is an explanation about how to collect managed lanes data.

**Feature 143 Associated Station Exception**—This feature automatically generates from the data recorded in Feature 141, cross referencing the limits and roadway ID of the stationing exception on the associated roadway.

**Feature 212 Through Lanes**—Records limits of the number of roadway lanes and their pavement surface width.

**Feature 213 Auxiliary Lanes**—Records the limits of type, number, and width of auxiliary lanes, such as turning, merging, and bus lanes.

**Feature 214 Outside Shoulders**—Records the limits of the managed lane separator, the type, and width of outside shoulders.

**Feature 215 Median**—Records the limits of the median barrier type, median width, and median type. There also is an explanation about how to collect roundabout as a wide median. Also includes Two Way Turns as of 09/2019).

**Feature 216 Bike Lanes/Pedestrian Sidewalk**—Records the limits of the bicycle lane, bicycle slot, sidewalk barrier code, shared path width and separation, and sidewalk width and separation.

**Feature 219 Inside Shoulders**—Records the limits of the type and width of inside shoulders.

**Feature 220 Non-Curve Intersection Point**—Records the location of the non-curve point of the intersection, where the alignment of the roadway jogs and lines up at an intersection.

**Feature 221 Horizontal Curve**—Records the compass bearing, horizontal curve central angle, horizontal degree of curve, horizontal point of curvature, horizontal point of intersection, and horizontal tangency of the curve.

**Feature 230 Surface Description**—Records the limits of the pavement index and surface type.

**Feature 232 Surface Layers**—Records the limits of the friction course layer, pavement surface thickness, and pavement surface layer.

**Feature 233 Base**—Records the limits of the base thickness and type of base material.

**Feature 251 Intersection**—Records the location, name, direction, and roadway surface type (optional) of the intersecting roads along the route.

**Feature 252 Interchanges**—Records the location, crossing road name, exit number, and interchange type.



**Feature 253 Railroads**—Records the location, check digit, and crossing number.

**Feature 258 Structures**—Records the locations of the bridge number, underpass number, tunnel, box culvert number with openings 20 feet or greater, and facility crossed.

**Feature 320 Mile Marker Signs**—Records the location of the mile marker sign.

**Feature 326 Traffic Monitoring Sites**—This feature automatically generates from the Traffic Counts Inventory (TCI) application, identifies the location of the traffic station number and the traffic station type.

**Feature 330 Traffic Flow Break Station**—This feature automatically generates from the TCI application, identifies the limits of the traffic count station assigned to the break and the traffic break code.

**Feature 331 Traffic Flow Breaks**—This feature automatically generates from the TCI application, identifies the annual average daily traffic (AADT) date, type and section, average D factor, K factor, T factor.

**Feature 360 Toll Plazas**—Records the toll plaza name.

**Feature 361 Service Plazas**—Records the service plaza name.

## *Freight and Multimodal Operations Office (FMO)*

**Feature 116 Freight Network**—Records the National Highway Freight Network (NHFN) and National Highway Freight Network Connector (NHFNCON).

**Feature 901 Rail Line Facility**—Records the limits of the railroad company name, rail line type, route ID, and SIS facility type.

**Feature 902 Passenger Rail**—Records the limits of the rail passenger facilities and rail managing entity.

**Feature 903 Rail Passenger Station Name**—Records the limits rail passenger station name and railroad urban fixed guideway facility type.

## *Systems Implementation Office (SIO)*

**Feature 146 Access Management**—Records limits of the access management classification.

**Feature 147 Strategic Intermodal System**—Records limits of the Strategic Intermodal System (SIS) facility type and map ID level.

**Feature 801 Trails**—Records the limits of shared used trails that are not part of the roadway.



# Administrative Features

These features represent administrative information (such as designations for funding) along the travelway.

## FEATURE 111

### STATE ROAD SYSTEM

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	Yes	No	Length	No	Yes
Responsible Party for Data Collection	Non-listed SR Numbers—Populated by TDA				
	All listed or posted SR & CR Numbers—District Planning				

**Definition/Background:** Florida Department of Transportation (FDOT) roadways are categorized as Interstates, U.S. Routes, State Roads (SRs) and County Roads (CRs) and are collectively called the “State Highway System” (SHS). All roadways on the SHS have a SR number that may or may not be posted. A single route often carries a U.S. Route Number and State Road Number, though only one number may be posted. Refer to the Transportation System Jurisdiction and Numbering Procedure, Topic No. 525-020-010.



If a roadway transfers from the SHS, the SR number is changed to the CR number in the database by changing the SR prefix to old state (OS) road number on an update screen. After one year, the OS is changed to CR. This is to assist the State Safety Office in locating crashes on roadways that were state roads when an accident occurred.

*State Road Numbers* are assigned by the Multimodal Data System Coordinator (TDA) as requested by the appropriate District Office. Odd numbers are assigned to north and south routes with the low number beginning in the east and progressing higher toward the west. Even numbers are assigned to east and west routes with low number beginning to the north and progressing toward the south.



When a SR number is recorded, a sequence number is automatically assigned to the roadway ID. The sequence number is used to store the SR numbers in the order that they actually occur, from south to north and west to east. However, the sequence number that is automatically assigned does not place the roadway ID segments in the proper sequence. In order to change a sequence number to the correct order according to the road's location, it must be re-sequenced manually in RCI.

*County Road Numbers* also are coded under this characteristic, with a prefix of CR.

**STROADNO | STATE ROAD NUMBER**  
**STRDNUM2 | SECONDARY STATE ROAD NUMBER**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
17, 18, 20		Work Program, Roadway Design Office, Outdoor Advertising Office, HPMS, Public	All roadways functionally classified as local and above; including Managed Lanes.	N/A	N/A

**Important When Gathering:** Code locations accurately. Distinguish between the state and county numbers. When two or more SR numbers are designated at the same milepoints, the lowest numbered route is coded as STROADNO. The next lowest number is coded STRDNUM2 and so on until all numbers have been recorded.

**How to Gather this Data:** Code designation for the entire length of the roadway ID. Code for multiple designations. Record the beginning and ending milepoints at the intersections. Record all state road numbers exactly as they are designated according to official paperwork. Verify the designations are signed correctly in the field.

**Special Situations:** If the SR number is not in the State Road Master List, it needs to be added to the database. Contact the Multimodal Data System Coordinator (TDA). When at a junction, also record the intersecting road's milepoint. The roadway ID should not change between intersecting roadways. Realignments should be carefully coded to ensure roadway ID continuity. There should be no gaps. For one-way road segments, data in Features 111 and 113 must break at the same points as the one-way points.

**Value for State Road/County Road:** Choose from the drop-down menu.

## FEATURE 112

### FEDERAL SYSTEM

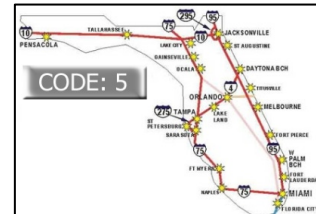
Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	Yes	Yes	Length	No	Yes
Responsible Party for Data Collection		TDA Multimodal Data System Coordinator			

**Definition/Background:** This feature is used to identify funding sources from the Federal Highway Administration (FHWA).

### FAHWYSYS | FEDERAL HIGHWAY SYSTEM CODE

HPMS	MIRE	Who/What Uses This Information	Required For	Offset Direction	Offset Distance
64	N/A	Work Program, Roadway Design Office, Outdoor Advertising Office, HPMS, Systems Implementation	All roadways functionally classified as local and above; including Managed Lanes.	N/A	N/A

**Definition/Background:** Shows federal-aid funding eligibility of public roadways. It also designates roadways as on or off the National Highway System (NHS). NHS is assigned by TDA and approved by FHWA. All roadways functionally classified as major collector and above and not as NHS are eligible for the Surface Transportation Block Grant Program (STBG). In general, STBG projects may not be on local or rural minor collectors, unless the roadway was on the Federal-aid Secondary System (FASS), as designated on January 1, 1991. For additional federal STBG funding eligibility, please see the eligibility requirements defined by 23 U.S. Code § 133: <https://www.fhwa.dot.gov/specialfunding/stp/160307.cfm#d>.



**Important When Gathering:** FHWA functional classification approval is discussed further in Feature 121.

**Cross-Reference/Tolerance:** STBG (formerly STP) and FA None should match Feature 121; NHS should match Feature 251 and intermodal facility locations.

**How to Gather this Data:** The data is provided by the District to the Multimodal Data System Coordinator (TDA), who coordinates the changes with FHWA for approval. See the Urban Boundary and Functional Classification Handbook for NHS guidance (page 23): <https://www.fdot.gov/statistics/hwsys/default.shtm>.

Codes	Descriptions
5	National Highway System (NHS)
6	Surface Transportation Block Grant (STBG) Program (formerly STP)—Urban Minor Collector or above, Rural Major collector or above and not NHS <sup>1</sup>
9	Federal Aid None (FA None)—Rural minor collectors or locals and not NHS

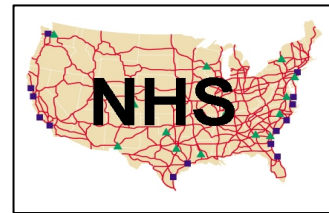
<sup>1</sup> The Fixing America's Surface Transportation (FAST) Act was signed into law on December 4, 2015, changing the STP program name to the Surface Transportation Block Grant Program (STBG).

## TRAVLWAY | TRAVEL WAY ALONG ROADWAY

HPMS	MIRE	Who/What Uses This Information	Required For	Offset Direction	Offset Distance
64	N/A	Work Program, Roadway Design Office, Outdoor Advertising Office, HPMS, Systems Implementation	NHS Roadways	N/A	N/A

**Definition/Background:** Denotes the reason an NHS route is included on the NHS and MAP-21 designations.

**How to Gather this Data:** Do not gather. The code is determined by the Multimodal Data System Coordinator (TDA) with the approval of the FHWA.



Codes	Descriptions	Related Characteristic(s)
1	NHS/Interstate	<b>FUNCLASS</b> —Functional Classification—Interstate
2	NHS/STRAHNET Route	<b>STGHWNWK</b> —Strategic Highway Network
3	NHS/STRAHNET Connector	<b>STGHWNWK</b> —Strategic Highway Network
4	NHS/Unbuilt	<b>STATEXPT</b> —Pending Status and preapproved by FHWA
5	NHS/Other	<b>FUNCLASS</b> —Functional Classification is not Interstate, not STRAHNET, not an Intermodal Connector for a SPECSYS Special System and not established per MAP-21 Legislation
6	NHS/Intermodal Connector	<b>FUNCLASS</b> —Functional Classification is not Interstate, not STRAHNET—STRAHNET, has an <b>NHSCID</b> —NHS Connector ID and serves a <b>SPECSYS</b> —Type of NHS Connector
7	NHS/MAP-21	<b>FUNCLASS</b> —Functional Classification is not Interstate, not STRAHNET, not an Intermodal Connector for a SPECSYS Special System, and established per MAP-21 Legislation established as of 9/21/2012

**NHSCID | NATIONAL HIGHWAY SYSTEM CONNECTOR**

HPMS	MIRE	Who/What Uses This Information	Required For	Offset Direction	Offset Distance
N/A		Work Program, Roadway Design Office, Outdoor Advertising Office, HPMS, Systems Implementation	NHS Connectors	N/A	N/A

**Definition/Background:** Used for the NHS connector to identify the facility served by the connector.

**How to Gather this Data:** The code is determined by the District/Multimodal Data System Coordinator (TDA) with the approval of the FHWA.

**EXAMPLE NHS CONNECTOR ID:**

FL15P

**NHSDATE | NATIONAL HIGHWAY SYSTEM DATE**

HPMS	MIRE	Who/What Uses This Information	Required For	Offset Direction	Offset Distance
64	N/A	Work Program, Roadway Design Office, Outdoor Advertising Office, HPMS, Systems Implementation	NHS Roadways	N/A	N/A

**Definition/Background:** Used for NHS roadways to identify the date the facility was approved to be added to the National Highway System by FHWA (effective February 2018).

**How to Gather this Data:** The date is provided by FHWA and documented on NHS application requests.

**EXAMPLE NHS DATE:**

9/21/2012

*(for NHS added per MAP-21)*

## SPECSYS | SPECIAL SYSTEMS

HPMS	MIRE	Who/What Uses This Information	Required For	Offset Direction	Offset Distance
64	N/A	Work Program, Roadway Design Office, Outdoor Advertising Office, HPMS, Systems Implementation	NHS Roadways	N/A	N/A

**Definition/Background:** Used for NHS connectors to identify the type of facility served by the connector.

**How to Gather this Data:** The code is determined by the District/Multimodal Data System Coordinator (TDA) with the approval of the FHWA.



Codes	Descriptions
02	Airport
03	Port Facility
04	AMTRAK Station
05	Rail/Truck Terminal
07	Public Transit Terminal

## STGHWNWK | STRATEGIC HIGHWAY NETWORK CODE

HPMS	MIRE	Who/What Uses This Information	Required For	Offset Direction	Offset Distance
65	N/A	Work Program, Roadway Design Office, Outdoor Advertising Office, HPMS, Systems Implementation	NHS Roadways	N/A	N/A

**Definition/Background:** The Strategic Highway Network (STRAHNET) pertains to national defense and is designated by the U.S. Department of Defense (DOD).

**How to Gather this Data:** Do not gather. The code is obtained by Multimodal Data System Coordinator (TDA) from FHWA, who coordinates changes with the DOD.



Codes	Descriptions
1	Yes
2	No



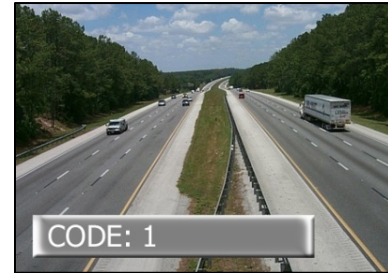
## OLDFASYS | OLD FEDERAL HIGHWAY SYSTEM

*HISTORICAL PURPOSE—REQUIRED TO BE MAINTAINED FOR DESIGNATED LIMITS*

HPMS	MIRE	Who/What Uses This Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Outdoor Advertising Office	Roadways formerly on the Federal Aid System prior to NHS establishment by Congress.	N/A	N/A

**Definition/Background:** This was an early version of the Federal Aid System and was replaced by the FAHWSYS characteristic. This field is for historical information only.

Under the OLDFASYS characteristic, the Federal Aid Interstate code was used for all interstate routes. The Federal Aid Primary code was used for all routes of primary importance, e.g., U.S. routes. The Federal Aid Urban code was used only for routes in urban areas. These codes are still used by outdoor advertising regulations.



**How to Gather this Data:** Do not gather. This feature will only be updated by shortening and deletion. It should not be lengthened.

Codes	Descriptions
1	Federal Aid Interstate
2	Federal Aid Primary
3	Federal Aid Urban
4	Federal Aid Secondary
9	Federal Aid None

## FEATURE 113

### AASHTO ROUTE SYSTEM

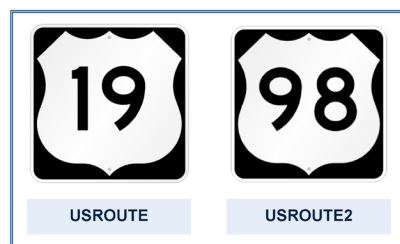
Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	Yes	Yes	Length	No	Yes
Responsible Party for Data Collection		District Planning			

**Definition/Background:** The interstate and U.S. route numbers are assigned by the Federal American Association of State Highway and Transportation Officials (AASHTO) usually following recommendations by each state department. Both interstate and U.S. routes are coded under the USROUTE characteristic.



*Interstate Route Numbers* are assigned with even numbers for west to east routes and odd numbers for routes going south to north, starting with the lowest number in the lowest part of the Nation and progressing higher nationwide.

*U.S. Route Numbers* are assigned with odd numbers for north and south routes with the low number beginning in the east and progressing higher toward the west. This numbering practice is used across all states for all interstates and U.S. routes for the public traveling purposes.



#### USROUTE | U.S. ROUTE NUMBER USROUTE2 | SECONDARY U.S. ROUTE NUMBER

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
17, 18, 20	N/A	FHWA, TDA, Traffic Engineering and Operations Office, District Office of Maintenance, Public	Roadways functionally classified that have U.S. route designations, and all Active Exclusive roads that are associated with Interstate and the U.S. route.	N/A	N/A

**Important When Gathering:** No additions, deletions, or changes can take place without AASHTO's approval. Any changes to this feature require a Linear Referencing System (LRS) package.

**How to Gather this Data:** In office—Add the interstate and U.S. route number to a roadway exactly as it appears on the Interstate and U.S. Route Number Listing. In the photo example, code USROUTE = I-95, USROUTE2 = U.S. 19 and USROUTE2 = U.S. 98.

When two or more U.S. route numbers are designated at the same milepoints, the lowest numbered route is coded first as USROUTE. The next lowest number is coded USROUTE2 and so on until all numbers have been recorded.

If the roadway has both an interstate and a U.S. route designation, the interstate route should be coded first then the U.S. route number. In addition, interstates and U.S. routes cannot have gaps for route sequencing purposes.

A sequence number will automatically be assigned in the master U.S. route listing file. This sequence number is used to store segments of the U.S. routes in the order that they actually occur, from south to north and west to east. However, the sequence number that is automatically assigned does not place the roadway ID segments in the proper sequence. In order to change a sequence number to the correct order according to the road's location, it must be re-sequenced manually in RCI.

**Special Situations:** If the U.S. route number is not in the Master Listing, then it needs to be added to the system, contact the State Multimodal Data System Coordinator in TDA. Interstate routes are coded under the characteristic USROUTE. For one-way roadway segments, data in Features 111 and 113 must break at the same points as the one-way points.

**Value for U.S. Route/Interstate:** Choose from the drop-down menu.

## FEATURE 114

### LOCAL SYSTEM

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	Yes	No	Length	No	Yes
Responsible Party for Data Collection		District Planning			

**Definition/Background:** The name given to a section of roadway to identify it from other sections of roadway. Local names are important for emergency medical services and law enforcement. The local name identifies where on the Florida roadway network an accident or incident occurred or is occurring. Street signs are not standardized across the state. Their naming scheme is determined by the governing city or county. For consistency, make all local name recordings comply with the guidelines below. This will ensure that RCI is standardized. This feature is used to associate a local name with roadway IDs in RCI for the labeling of roadways in GIS applications like iView and Florida Traffic Online.

#### LOCALNAM | LOCAL NAME OF FACILITY

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	TDA, Traffic Engineering and Operations Office, District Office of Maintenance, Public	All roadways, including Active Exclusives.	N/A	N/A

**Cross-Reference/Tolerance:** Double-check the name, use USPS street suffixes, and special situations.

**How to Gather this Data:** Capture from the beginning of the roadway ID to the end. Only record local name changes when two consecutive signage types contain identical names. Signage types are defined under the roadway naming signage type hierarchy on the next page. Always record the local name from the highest signage type near the beginning of the roadway, but after that, if no two consecutive signage types are identical, then keep the name of the highest signage type for the entire roadway.

A local name most commonly occurs within city limits. When outside of city limits the U.S. route, state road, or county road number is the most common. Pay close attention to posted signage when entering and exiting cities to see when the name changes happen. Roadways within city limits can have more than one local name.

## DO NOT START LOCAL NAME WITH THESE SYMBOLS

Symbol	Description	Substitution
@	At	AT
#	Pound or Hashtag	NUMBER or NO
%	Percent	PCT
&	Ampersand	AND
,	Comma	Omit
' or "	Single or Double Quote	Omit
: or ;	Colon or Semi-colon	Omit

*Typical Street Signage*

A local name most commonly occurs within city limits. Roadways within city limits can have more than one local name and usually begin and/or end at an intersection and county lines.

*No Signage*

Research other sources such as city maps, local Government, geographic information system (GIS) products, or other resources to determine the local name. After reviewing other sources, if the local name of the roadway still cannot be determined, then code it as “**UNSIGNED**.”

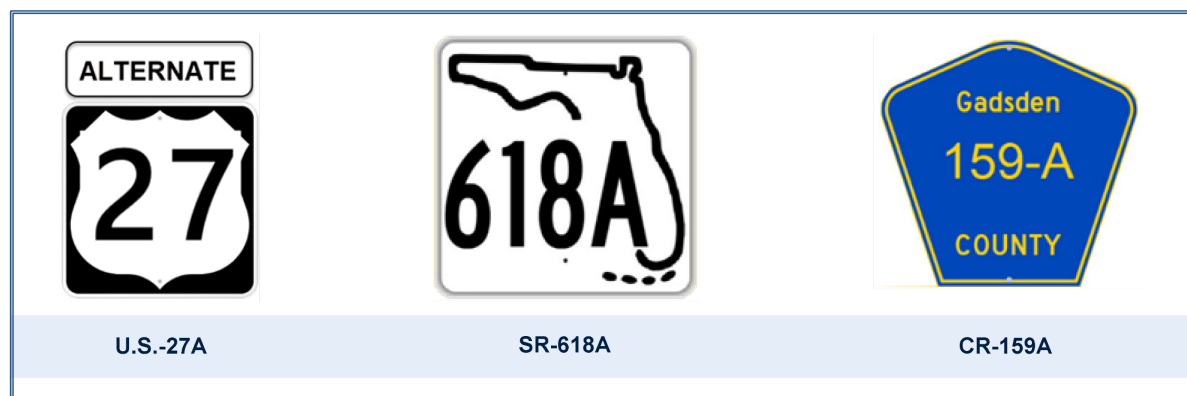
*Route Signage*

Interstate (e.g., I-95), Expressway (e.g., Dolphins Expressway), U.S. Route (e.g., U.S.-441), State Roads (e.g., SR-20), and County Road (e.g., CR-248) signs often contain direction of travel information. However, directional information is not recorded for routes or the associated ramps. *The hyphens are used for reporting purposes to keep the name together and for consistency.*

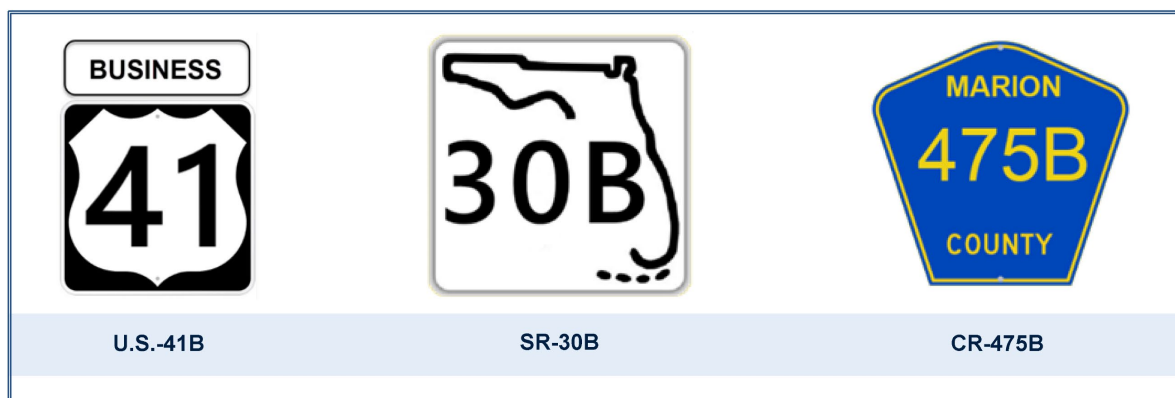
*Alternate and Business Route Signage*

These are recorded with an “A” for Alternate and “B” for Business as postfixes to the route number.

Code Alternate Routes as:



Code Business Routes as:



### Cardinal Direction

Signage within a city may include the quadrant of the city in which the roadway exists. Additionally, for address purposes, a street name with a cardinal direction is distinctly different than one without or with another cardinal direction. Streets with cardinal directions (e.g., N, SW) may be included on ground mounted street name signs and/or overhead street name signs; when omitted for simplicity from the overhead sign then defer to the ground mounted sign. There is not a standard on signage for location of various elements of the street name, therefore the Cardinal Direction may be signed at the beginning or ending of the street name—record it where it is located. Use the following abbreviations:



Code	Definition
N	North
S	South
E	East
W	West
NE	Northeast
NW	Northwest
SE	Southeast
SW	Southwest

### Suffix

Use the Official USPS standard street suffix abbreviations (See *Appendix K* for full list). This improves consistency throughout the State. Do not add the period after the abbreviation. Below are only a few of the suffixes as examples:

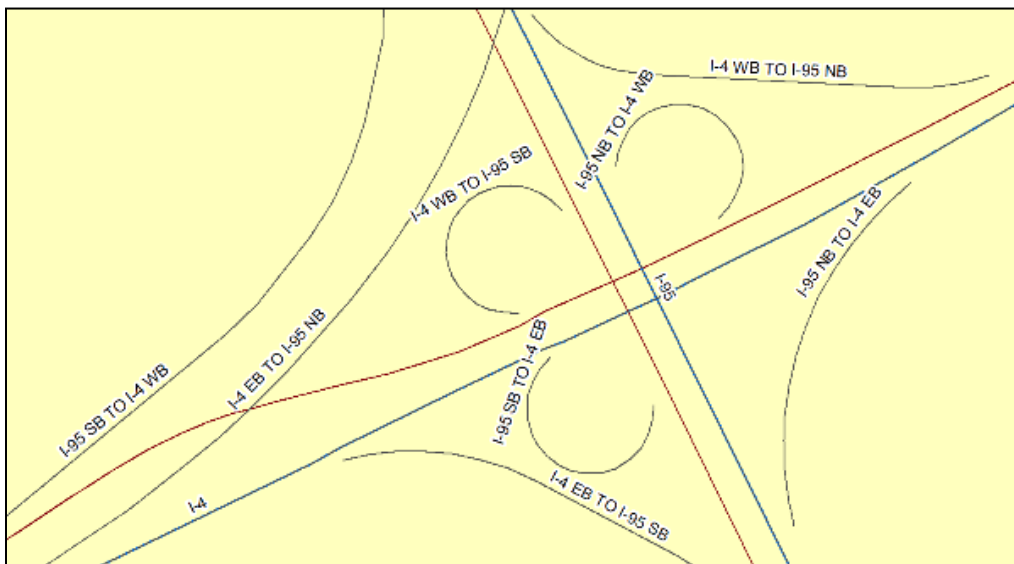
Code	Definition
<b>ST</b>	Street
<b>BLVD</b>	Boulevard
<b>TRL</b>	Trail
<b>LN</b>	Lane
<b>AVE</b>	Avenue
<b>PKWY</b>	Parkway
<b>CT</b>	Court

### Ramps

Typically, ramps are named by referencing the mainline roadway for which access is provided. A ramp providing access for an interstate and another roadway will be named after the interstate. However, further guidance is used when two limited access roads connect to ensure the ramp is referenced correctly. FDOT uses the first 5 digits of a mainline to identify the ramps and frontage roads associated with it. The preferred method is to include the direction of the facilities being connected when there are multiple ramps.

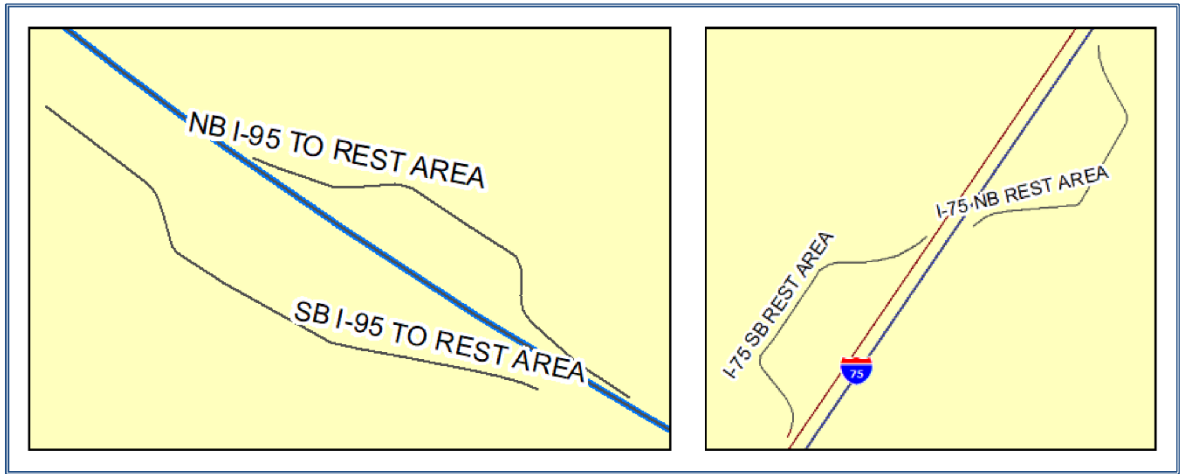
### Interchange Ramp Names

Interchange ramps use the directionality when it is from one direction to only one direction.



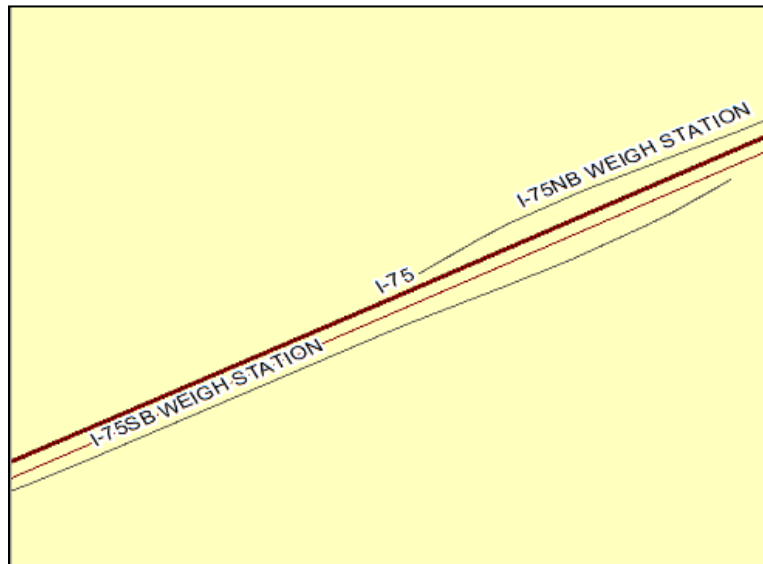
### *Rest Area Ramp Names*

A Ramp to a Rest Area also uses the direction of the mainline.



### *Weigh Station Ramp Names*

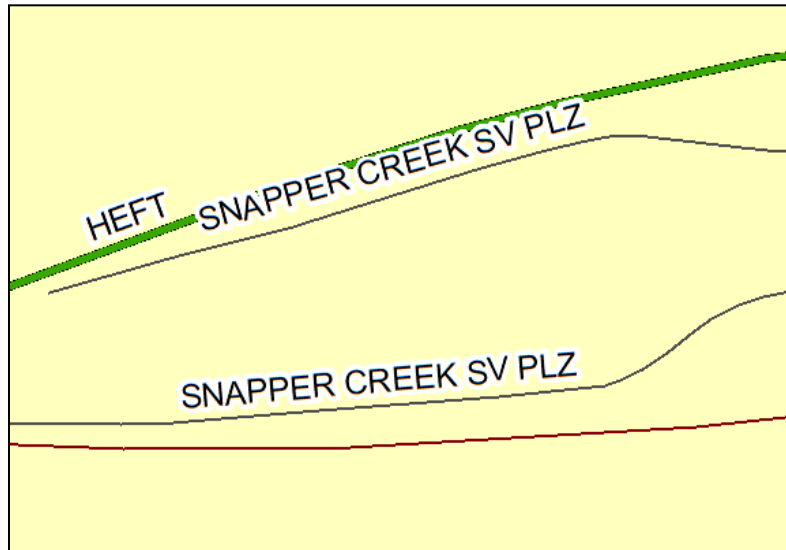
A Ramp to a Weigh Station also uses the direction of the mainline.





*Toll and Service Plaza Ramp Names*

A Ramp to a Service Plaza indicates the name of the plaza since it is more unique than other ramps.



### Roadway Naming Signage Type Hierarchy

When multiple signs exist, use the sequence below to help ensure consistency for local names.

<p>1. Ground Mounted Street Name Sign</p>			<p>2. Overhead Street Name Sign</p>	
<p>3. Interstate Marker</p>	<p>4. U.S. Route Marker</p>	<p>5. SR Marker</p>	<p>6. CR Marker</p>	
<p>7. Memorial Designation Sign</p>		<p>8. Other Roadway Designation Sign</p>		

## FEATURE 115

### SPECIAL DESIGNATION

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	Yes	Yes	Length	Yes	Yes
<b>Responsible Party for Data Collection</b>		<p><i>Central Office Coordination</i>—The State Scenic Highway Coordinator (Production Support Office) will convey designation information to the Multimodal Data System Coordinator (TDA) who will determine the appropriate roadway IDs, the beginning and ending milepoints for the designated roadways.</p> <p><i>District Coordination</i>—The District Planning data collectors and District Scenic Highway Coordinators will coordinate and advise Central Office on any differences and assist in ensuring the data accuracy.</p>			

**Definition/Background:** Denotes the designation of the Florida Scenic Highway Program, which was developed in 1996 in accordance with *Section 335.093, F.S.* The program promotes the preservation, protection and enhancement of the cultural, historical, archeological, recreational, natural and scenic resources of designated Florida highways. For more information about the Florida Scenic Highway Program, please visit the website: <https://floridascenichighways.com>.



#### SCENEHWY | SCENIC HIGHWAY DESIGNATION

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Outdoor Advertising Office, Statewide Scenic Highway Coordinators, Public	All roadways designated as a scenic highway by the Production Support Office.	N/A	N/A

**Cross-Reference/Tolerance:** Verify the RCI milepoint limits and lengths are consistent with the limits denoted in the official designation letter.

**How to Gather this Data:** Record from the beginning milepoint to the ending milepoint of the designated roadway.

Each Florida scenic highway is accompanied by a Corridor Management Plan (CMP) or Byway Management Plan (BMP) prepared by a byway organization. The byway organization implements the CMP/BMP in partnership with FDOT and local partners. The State Scenic Highway Coordinator transmits a copy of the official letter of designation, which specifies the designated roadways and termini, to the Multimodal Data System Coordinator for scanning and maintaining in the Electronic Documentation Management System (EDMS) for historical purposes. This is applicable to both new designations and extensions of current designations.

Posted signs display the limits of the scenic highway designation but may not always show its official designation name. Any questions regarding scenic highway designations should be directed to the State Scenic Highway Coordinator.

**Special Situations:** Some designations may exist on local roads. Designations may extend across multiple roadway IDs. Districts are to field verify the location of the milepoints, prepare and submit an LRS package to TDA to update the milepoints for this characteristic.

Codes	Scenic Highway Names
<b>A1AHB</b>	A1A Scenic & Historic Coastal Byway
<b>BBH</b>	Bradenton Beach Scenic Highway
<b>BBSB</b>	Big Bend Scenic Byway
<b>BCASH</b>	Broward County A1A Scenic Highway
<b>CC</b>	Courtney Campbell Scenic Highway
<b>FBB</b>	Florida Black Bear National Scenic Byway
<b>FKH</b>	Florida Keys Scenic Highway
<b>GMB</b>	Green Mountain Scenic Byway
<b>HCH</b>	Heritage Crossroads: Mile of History
<b>IRL</b>	Indian River Lagoon National Scenic Byway
<b>IRLTC</b>	Indian River Lagoon—Treasure Coast Scenic Highway
<b>JCPMH</b>	JC Penney Memorial Scenic Highway
<b>LBMT</b>	Lemon Bay/Myakka Trail Scenic Highway
<b>MGH</b>	Martin Grade Scenic Highway
<b>OFH</b>	Old Florida Heritage Highway
<b>OIT</b>	Ocean Islands Trail
<b>OLAT</b>	Ormond Scenic Loop & Trail
<b>PBH</b>	Pensacola Scenic Bluffs Highway
<b>PSH</b>	Palma Sola Scenic Highway
<b>ROLHC</b>	River of Lakes Heritage Corridor
<b>SH30A</b>	Scenic Highway 30-A
<b>SSHBC</b>	Scenic Sumter Heritage Byway
<b>SSP</b>	Suncoast Scenic Parkway
<b>TRH</b>	The Ridge Scenic Highway
<b>TTH</b>	Tamiami Trail Highway ( <i>Obsolete</i> )
<b>TTWGCW</b>	Tamiami Trail—Windows to the Gulf Coast Waters Scenic Highway
<b>WBT</b>	William Bartram Scenic and Historic Highway
<b>HHB</b>	Halifax Heritage Byway

**SCENEDTE | SCENIC HIGHWAY DESIGNATION DATE**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Outdoor Advertising Office, Public	All roadways designated as a scenic highway by the Production Management Office.	N/A	N/A

**Definition/Background:** Denotes the date the segment was designated on the signed designation letter. Additionally, some scenic highways have been extended to include more roadway segments. Each extension has a designation letter date.

**Cross-Reference/Tolerance:** Review and confirm the date is entered correctly in RCI for specified limits.

**How to Gather this Data:** The date of the scenic highway designation must come from the official signed designation letter or the signed designation extension letter.

**Special Situations:** Existing scenic highways that do not have a SCENEDTE will only be updated once a signed letter is sent to the Multimodal Data System Coordinator.

**Value for Scenic Highway Designation Date:** 8 Bytes: MMDDYYYY Example: 12012017 is December 1, 2017

**SCENEEXT | SCENIC HIGHWAY DESIGNATION EXTENSION**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Outdoor Advertising Office, Public	All roadways designated as a scenic highway by the Production Management Office.	N/A	N/A

**Definition/Background:** Denotes the original or extension number of the Scenic Highway Designation segment. Since the inception of this program, some of the scenic highways have been extended to include additional segments of roads. The extension occurs at a different date than the original designation.

**Cross-Reference/Tolerance:** The designated map and designated limits will be reviewed to ensure they match.

**How to Gather this Data:** The State Scenic Highway Coordinator will identify which extension, if any, for the scenic highway designation. The designated limits should correspond to the roadway ID milepoint limits. Districts will field verify the milepoints.

**Special Situations:** Existing scenic highways that do not have a SCENEEXT will only be updated once a signed letter is sent to the Multimodal Data System Coordinator in TDA. Any new Scenic Highway Designation will receive a roadway ID number assignment. The Districts will work in tandem with the Multimodal Data System Coordinator to submit an LRS package to TDA for the roadway ID number assignment and approximate milepoints for the limits of the designation to be entered into RCI.

Codes	Descriptions
00	Original Designation
01	1 <sup>st</sup> Extension
02	2 <sup>nd</sup> Extension
03	3 <sup>rd</sup> Extension
04	4 <sup>th</sup> Extension
05	5 <sup>th</sup> Extension

## FEATURE 116

### FREIGHT NETWORK

#### NHFN | NATIONAL HIGHWAY FREIGHT NETWORK

Roadway Side	HPMS	Feature Type	Interlocking
C	4	Length	Yes

**Definition/Background:** The National Highway Freight Network (NHFN), established by Federal Highway Administration (FHWA), designates portions of the National Highway System (NHS) and State Highway System (SHS) in Florida eligible for federal funding under the National Highway Freight Program (NHFP) in accordance with **49 U.S.C. 70203**.

The NHFN includes the following subsystems of roadways:

**Primary Highway Freight System (PHFS):** This is a network of highways identified as the most critical highway portions of the U.S. freight transportation system determined by measurable and objective national data.

Includes both Primary Highway Freight System (PHFS) and PHFS Intermodal Connectors.



Other interstate portions not on the PHFS: These highways consist of the remaining portion of interstate roads not included in the PHFS. These routes provide important continuity and access to freight transportation facilities.

**Critical Rural Freight Corridors (CRFCs):** These are public roads not in an urbanized area which provide access and connection to the PHFS and the interstate with other important ports, public transportation facilities, or other intermodal freight facilities.

**Critical Urban Freight Corridors (CUFCs):** These are public roads in urbanized areas which provide access and connection to the PHFS and the interstate with other ports, public transportation facilities, or other intermodal transportation facilities.

**Responsible Party for Data Collection:** For PHFS—FHWA. For CUFCs and CRFCs—FMO and MPOs.

For further assistance, please contact the FMO office at (850) 414-2602.

**Required For:** Prioritizing projects for NHFP funding.

**Who/What uses this Information:** FMO, FHWA, Freight Logistics and Passengers Operations (FLP), Work Program, SIS, HPMS.

**Important When Gathering:** No additions, deletions, nor changes can take place without FHWA's approval.

**Quality Check: Cross Reference/Tolerance:** The network assignments should be crosschecked with the NHFN network provided by FHWA.

**How to Gather this Data:** The data is gathered by FMO. The PHFS and non-CRFC and CUFC networks are designated and approved by FHWA. The CUFCs and CRFCs are designated by FMO and MPOs and submitted by FDOT FMO Office for designation approval by FHWA.

**Special Situations:** CRFC and CUFC can be changed, deleted or added yearly by FMO Office.

Codes	Descriptions
1	PHFS (Primary Highway Freight System) Routes
2	Interstate not on the PHFS
3	CRFC (Critical Rural Freight Corridor)
4	CUFC (Critical Urban Freight Corridor)

**NOTE:** Designation criteria for CRFC and CUFC, as per Fixing America's Surface Transportation Act (FAST) act regulations, the following criteria should be met.

**For CRFCs:** 23 U.S.C. 167(e) identifies the requirements for designating CRFCs

Critical rural freight corridors should be:

- Public roads not in an urbanized area.
- Require identification by the State's responsibility.
- Provides access and connection to the PHFS and the interstate.
- May include other important ports, public transportation facilities, or other intermodal freight facilities.
- Maximum limit of CRFC mileage is 320.14 centerline miles.

Critical rural freight corridors may satisfy one or more of the following criteria:

1. Is a rural principal arterial that has a minimum of 25 percent of AADT of the road measured in passenger vehicle equivalents from trucks (FHWA vehicle classes 8-13)?
2. Provides access to energy, exploration, development, installation or production areas.
3. Connects the PHFS or the interstate system to facilities that handle more than 50,000 20-foot equivalent units (TEUs) per year or/and 500,000 tons per year of bulk commodities.
4. Provides access to grain elevators, agricultural facilities, mining facilities, forestry facilities, intermodal facility international port of entry, significant air, rail, water, or other freight facilities in the state.
5. Connects to an international port of entry.
6. Provides access to significant air, rail, water, or other freight facilities in the state.
7. Is determined by the State to be vital to improving the efficient movement of freight importance to the economy of the state.



**For CUFCs:** 23 U.S.C. 167(f) identifies the requirements for designating CUFCs

It is important to note that if public roads are in an urbanized area (population of 500,000 or greater) then the designation should be done by the MPO with consultation by the State. On the other hand, if public roads are in an urbanized area (population less and 500,000), then designation should be done by the State with consultation of the MPO. Maximum limit of CUFC mileage is 160.07 centerline miles.

Critical urban freight corridors may satisfy one of the following criteria:

1. Connects an intermodal facility to the PHFS, the interstate system, or an intermodal freight facility.
2. Is located within a corridor of a route on the PHFS and provides an alternative highway option important to goods movement.
3. Serves a major freight generator, logistic center, or manufacturing and warehouse industrial land.

Is important to the movement of freight within the region, as determined by the MPO or the State.

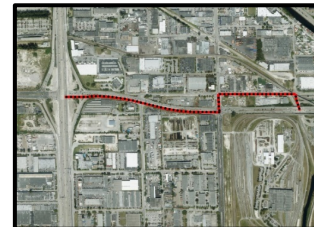
## NHFNCON | NATIONAL HIGHWAY FREIGHT NETWORK CONNECTOR

Roadway Side	HPMS	Feature Type	Interlocking
C	4	Length	Yes

**Definition/Background:** The National Highway Freight Network (NHFN) Connector, established by Federal Highway Administration (FHWA).

**Responsible Party for Data Collection:** For PHFS Connector—FHWA—FMO and MPOs.

For further assistance, please contact Central FMO office at (850) 414-2602.



**Required For:** Prioritizing projects for NHFP funding.

**Who/What uses this Information:** FMO, FHWA, Freight Logistics and Passengers Operations (FLP), Work Program, SIS, HPMS.

**Important When Gathering:** No additions, deletions, nor changes can take place without FHWA's approval.

**Quality Check: Cross Reference/Tolerance:** The network assignments should be crosschecked with the NHFN Connector provided by FHWA.

**How to Gather this Data:** The data is gathered by FMO. The PHFS Connectors are designated and approved by FHWA.

Codes	Descriptions
8	PHFS Intermodal Connectors

## FEATURE 117

### *FIPS DESIGNATED BOUNDARIES*

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	Yes	No	Length	No	Yes
Responsible Party for Data Collection		TDA Multimodal Data Systems Coordinator			

**Definition/Background:** Feature 117 identifies the federal FIPS place codes and urban area codes.

#### FIPSPLCD | FIPS CENSUS PLACE (CITY) CODE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		FHWA, HPMS	All functionally classified roadways inside incorporated cities, ramps with ramp functional classification, and Managed Lanes.	N/A	N/A

**Definition/Background:** Cities and urban areas in the state are assigned the 5-digit Census FIPS identification number.

**How to Gather this Data:** Codes are assigned using an automated process completed bi-annually/annually, (depending on Florida Geographic Data Library (FGDL) city boundary data availability using the Florida Department of Revenue (FDOR) parcel data) as provided by Central Office TDA.<sup>1</sup>

FIPS Code	Places
00375	Alachua
00625	Alford
00950	Altamonte Springs
01000	Altha
01475	Anna Maria
01625	Apalachicola
01700	Apopka
01750	Arcadia
01775	Archer

FIPS Code	Places
02250	Astatula
02400	Atlantic Beach
02500	Atlantis
02550	Auburndale
02750	Avon Park
02681	Aventura
03250	Baldwin
03275	Bal Harbour
03675	Bartow

FIPS Code	Places
03725	Bascom
03975	Bay Harbor Islands
04150	Bay Lake
05075	Belleair
05100	Belleair Beach
05125	Belleair Bluffs
05150	Belleair Shore
05200	Belle Glade
05300	Belle Isle

<sup>1</sup> City limit boundaries are updated by FGDL to reflect any parcels that had tax code changes. In some cases, boundaries are checked against pdf maps, web maps, or other spatial datasets that are accessed and downloaded from local city or county webpages. If not already reflected in tax codes, annexations were added based on data obtained from the Bureau of Economic and Business Research (BEBR).

FIPS Code	Places
05375	Bellevue
04975	Bell
06100	Beverly Beach
06600	Biscayne Park
06925	Blountstown
07300	Boca Raton
07450	Bonifay
07525	Bonita Springs
07775	Bowling Green
07875	Boynton Beach
07975	Bradenton Beach
07950	Bradenton
08175	Branford
08575	Briny Breezes
08600	Bristol
08700	Bronson
08725	Brooker
08800	Brooksville
09550	Bunnell
09625	Bushnell
09700	Callahan
09725	Callaway
09900	Campbellton
10250	Cape Canaveral
10275	Cape Coral
10725	Carrabelle
10975	Caryville
11050	Casselberry
11225	Cedar Key
11325	Center Hill
11362	Century
11800	Chattahoochee
11925	Chiefland
11975	Chipley

FIPS Code	Places
12325	Cinco Bayou
12875	Clearwater
12925	Clermont
13000	Clewiston
13050	Cloud Lake
13175	Cocoa Beach
13150	Cocoa
13275	Coconut Creek
13400	Coleman
14125	Cooper City
14250	Coral Gables
14400	Coral Springs
14850	Cottdale
15375	Crescent City
15475	Crestview
15575	Cross City
15775	Crystal River
15968	Cutler Bay
16125	Dade City
16335	Dania Beach
16450	Davenport
16475	Davie
16525	Daytona Beach
16550	Daytona Beach Shores
16675	Debarry
16725	Deerfield Beach
16800	DeFuniak Springs
16875	Deland
17100	Delray Beach
17200	Deltona
17325	Destin
17935	Doral
18550	Dundee
18575	Dunedin

FIPS Code	Places
18675	Dunnellon
18875	Eagle Lake
19650	Eatonville
19725	Ebro
19825	Edgewater
19900	Edgewood
20650	El Portal
21150	Estero
21250	Esto
21350	Eustis
21425	Everglades City
21850	Fanning Springs
22100	Fellsmere
22175	Fernandina Beach
22550	Flagler Beach
22975	Florida City
24000	Fort Lauderdale
24100	Fort Meade
24150	Fort Myers Beach
24125	Fort Myers
24300	Fort Pierce
24475	Fort Walton Beach
24500	Fort White
24825	Freeport
24900	Frostproof
24975	Fruitland Park
25175	Gainesville
26050	Glen Ridge
26075	Glen Saint Mary
26250	Golden Beach
26550	Golf
27000	Graceville
27175	Grand Ridge
27256	Grant-Valkaria

<b>FIPS Code</b>	<b>Places</b>
<b>27322</b>	Greenacres
<b>27400</b>	Green Cove Springs
<b>27550</b>	Greensboro
<b>27575</b>	Greenville
<b>27600</b>	Greenwood
<b>27650</b>	Gretna
<b>27800</b>	Groveland
<b>28000</b>	Gulf Breeze
<b>28175</b>	Gulfport
<b>28275</b>	Gulf Stream
<b>28400</b>	Haines City
<b>28452</b>	Hallandale Beach
<b>28575</b>	Hampton
<b>29150</b>	Havana
<b>29200</b>	Haverhill
<b>29275</b>	Hawthorne
<b>30000</b>	Hialeah
<b>30025</b>	Hialeah Gardens
<b>30200</b>	Highland Beach
<b>30325</b>	Highland Park
<b>30525</b>	High Springs
<b>30700</b>	Hillcrest Heights
<b>30750</b>	Hilliard
<b>30850</b>	Hillsboro Beach
<b>31350</b>	Holly Hill
<b>32000</b>	Hollywood
<b>32150</b>	Holmes Beach
<b>32275</b>	Homestead
<b>32650</b>	Horseshoe Beach
<b>32775</b>	Howey-In-The-Hills
<b>33150</b>	Hypoluxo
<b>33375</b>	Indialantic

<b>FIPS Code</b>	<b>Places</b>
<b>33425</b>	Indian Creek Village
<b>33450</b>	Indian Harbour Beach
<b>33600</b>	Indian River Shores
<b>33625</b>	Indian Rocks Beach
<b>33675</b>	Indian Shores
<b>33700</b>	Indiantown
<b>33800</b>	Inglis
<b>33900</b>	Interlachen
<b>33950</b>	Inverness
<b>34132</b>	Islamorada, Village Of Islands
<b>35000</b>	Jacksonville
<b>35050</b>	Jacksonville Beach
<b>35200</b>	Jacob City
<b>35375</b>	Jasper
<b>35425</b>	Jay
<b>35525</b>	Jennings
<b>35850</b>	Juno Beach
<b>35900</b>	Jupiter Inlet Colony
<b>35925</b>	Jupiter Island
<b>35875</b>	Jupiter
<b>36175</b>	Kenneth City
<b>36300</b>	Key Biscayne
<b>36325</b>	Key Colony Beach
<b>36475</b>	Keystone Heights
<b>36550</b>	Key West
<b>36950</b>	Kissimmee
<b>37225</b>	Labelle
<b>37300</b>	Lacrosse
<b>37375</b>	Lady Lake
<b>37525</b>	Lake Alfred

<b>FIPS Code</b>	<b>Places</b>
<b>37625</b>	Lake Buena Vista
<b>37650</b>	Lake Butler
<b>37775</b>	Lake City
<b>37800</b>	Lake Clarke Shores
<b>37975</b>	Lake Hamilton
<b>38025</b>	Lake Helen
<b>38250</b>	Lakeland
<b>38425</b>	Lake Mary
<b>38600</b>	Lake Park
<b>38625</b>	Lake Placid
<b>38950</b>	Lake Wales
<b>39075</b>	Lake Worth
<b>39375</b>	Lantana
<b>39425</b>	Largo
<b>39475</b>	Lauderdale-By-The-Sea
<b>39525</b>	Lauderdale Lakes
<b>39550</b>	Lauderhill
<b>39650</b>	Laurel Hill
<b>39700</b>	Lawtey
<b>39725</b>	Layton
<b>39750</b>	Lazy Lake
<b>39850</b>	Lee
<b>39875</b>	Leesburg
<b>40450</b>	Lighthouse Point
<b>40875</b>	Live Oak
<b>41150</b>	Longboat Key
<b>41250</b>	Longwood
<b>41577</b>	Loxahatchee Groves
<b>41825</b>	Lynn Haven
<b>41950</b>	Maccleddy
<b>42150</b>	Mcintosh
<b>42400</b>	Madeira Beach
<b>42425</b>	Madison

FIPS Code	Places
42575	Maitland
42625	Malabar
42650	Malone
42700	Manalapan
42900	Mangonia Park
43000	Marathon
43083	Marco Island
43125	Margate
43175	Marianna
43250	Marineland
43375	Mary Esther
43425	Mascotte
43575	Mayo
43900	Medley
44000	Melbourne Beach
43975	Melbourne
44075	Melbourne Village
44300	Mexico Beach
45025	Miami Beach
45000	Miami
45060	Miami Gardens
45100	Miami Lakes
45175	Miami Shores
45200	Miami Springs
45225	Micanopy
45425	Midway
45750	Milton
45900	Minneola
45975	Miramar
46500	Monticello
46525	Montverde
46550	Moore Haven
47050	Mount Dora
47200	Mulberry

FIPS Code	Places
47625	Naples
48100	Neptune Beach
48200	Newberry
48500	New Port Richey
48625	New Smyrna Beach
48750	Niceville
48900	Noma
49225	North Bay Village
49425	North Lauderdale
49475	North Miami Beach
49450	North Miami
49600	North Palm Beach
49675	North Port
49725	North Redington Beach
50450	Oak Hill
50575	Oakland Park
50525	Oakland
50750	Ocala
50900	Ocean Breeze
50950	Ocean Ridge
51075	Ocoee
51200	Okeechobee
51350	Oldsmar
51650	Opa-Locka
51825	Orange City
52125	Orange Park
52175	Orchid
53000	Orlando
53150	Ormond Beach
53500	Otter Creek
53575	Oviedo
53800	Pahokee

FIPS Code	Places
53875	Palatka
54000	Palm Bay
54075	Palm Beach Gardens
54150	Palm Beach Shores
54025	Palm Beach
54200	Palm Coast
54250	Palmetto
54275	Palmetto Bay
54425	Palm Shores
54450	Palm Springs
54725	Panama City Beach
54700	Panama City
55075	Parker
55125	Parkland
55475	Paxton
55750	Pembroke Park
55775	Pembroke Pines
55875	Penney Farms
55925	Pensacola
56150	Perry
56425	Pierson
56625	Pinecrest
56975	Pinellas Park
57425	Plantation
57550	Plant City
57950	Polk City
58025	Pomona Park
58050	Pompano Beach
58175	Ponce De Leon
58200	Ponce Inlet
58575	Port Orange
58600	Port Richey
58675	Port St. Joe
58715	Port St. Lucie

<b>FIPS Code</b>	<b>Places</b>
<b>59200</b>	Punta Gorda
<b>59325</b>	Quincy
<b>59400</b>	Raiford
<b>59675</b>	Reddick
<b>59725</b>	Redington Beach
<b>59750</b>	Redington Shores
<b>60975</b>	Riviera Beach
<b>61500</b>	Rockledge
<b>62100</b>	Royal Palm Beach
<b>62425</b>	Safety Harbor
<b>62525</b>	St. Augustine Beach
<b>62500</b>	St. Augustine
<b>62625</b>	St. Cloud
<b>62775</b>	St. Leo
<b>62800</b>	St. Lucie Village
<b>62825</b>	St. Marks
<b>62885</b>	St. Pete Beach
<b>63000</b>	St. Petersburg
<b>63375</b>	San Antonio
<b>63650</b>	Sanford
<b>63700</b>	Sanibel
<b>64175</b>	Sarasota
<b>64400</b>	Satellite Beach
<b>64725</b>	Sea Ranch Lakes
<b>64825</b>	Sebastian
<b>64875</b>	Sebring
<b>64975</b>	Seminole
<b>65225</b>	Sewall's Point
<b>65425</b>	Shalimar

<b>FIPS Code</b>	<b>Places</b>
<b>66725</b>	Sneads
<b>66925</b>	Sopchoppy
<b>67175</b>	South Bay
<b>67325</b>	South Daytona
<b>67550</b>	South Miami
<b>67650</b>	South Palm Beach
<b>67675</b>	South Pasadena
<b>68135</b>	Southwest Ranches
<b>68275</b>	Springfield
<b>68525</b>	Starke
<b>68875</b>	Stuart
<b>69555</b>	Sunny Isles Beach
<b>69700</b>	Sunrise
<b>70075</b>	Surfside
<b>70345</b>	Sweetwater
<b>70600</b>	Tallahassee
<b>70675</b>	Tamarac
<b>71000</b>	Tampa
<b>71150</b>	Tarpon Springs
<b>71225</b>	Tavares
<b>71400</b>	Temple Terrace
<b>71525</b>	Tequesta
<b>71900</b>	Titusville
<b>72325</b>	Treasure Island
<b>72350</b>	Trenton
<b>73025</b>	Umatilla
<b>73675</b>	Valparaiso
<b>73900</b>	Venice
<b>74125</b>	Vernon
<b>74150</b>	Vero Beach

<b>FIPS Code</b>	<b>Places</b>
<b>74575</b>	Virginia Gardens
<b>74925</b>	Waldo
<b>75375</b>	Wauchula
<b>75450</b>	Wausau
<b>75600</b>	Webster
<b>75625</b>	Weeki Wachee
<b>75812</b>	Wellington
<b>75750</b>	Welaka
<b>76500</b>	West Melbourne
<b>76525</b>	West Miami
<b>76600</b>	West Palm Beach
<b>76658</b>	West Park
<b>76582</b>	Weston
<b>76975</b>	Westville
<b>77100</b>	Wewahitchka
<b>77400</b>	White Springs
<b>77675</b>	Wildwood
<b>77825</b>	Williston
<b>78000</b>	Wilton Manors
<b>78050</b>	Windermere
<b>78250</b>	Winter Garden
<b>78275</b>	Winter Haven
<b>78300</b>	Winter Park
<b>78325</b>	Winter Springs
<b>78775</b>	Worthington Springs
<b>78925</b>	Yankeetown
<b>79225</b>	Zephyrhills
<b>79250</b>	Zolfo Springs
<b>76417</b>	Westlake

## FIPSUACD | FHWA URBAN AREA CODE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		FHWA, HPMS	All functionally classified roadways inside incorporated cities, ramps with ramp functional classification, and Managed Lanes.	N/A	N/A

**Definition/Background:** An urban area is defined as a geographical region comprising, as a minimum, the Census Bureau defined urban boundaries (of population 5,000 and above) and adjusted to encompass the adjacent developed areas as provided for by FHWA regulations, **Sub-section 334.003(27), F.S.**

**How to Gather this Data:** Record the FHWA Urban Area code assigned to the urban area from the table provided herein. Urban areas with population equal to or less than 5,000 will be assigned code, '99998'. All areas outside urban areas are assigned code, '99999'. This code normally changes only once every 10 years, following re-evaluation of the FHWA urban boundaries.

<b>FHWA Code</b>	<b>Name</b>
<b>99998</b>	Arcadia—Southeast Arcadia
<b>99998</b>	Belle Glade
<b>99998</b>	Big Pine Key
<b>8974</b>	Bonita Springs
<b>13510</b>	Cape Coral
<b>99998</b>	Chattahoochee
<b>99998</b>	Clewiston
<b>99998</b>	Crawfordville
<b>99998</b>	Crestview
<b>99998</b>	DeFuniak Springs
<b>23311</b>	Deltona
<b>99998</b>	Fellsmere
<b>99998</b>	Fernandina Beach
<b>99998</b>	Fort Meade
<b>31060</b>	Fort Walton Beach-Navarre-Wright
<b>99998</b>	Four Corners
<b>99998</b>	Frostproof
<b>32167</b>	Gainesville
<b>39758</b>	Homosassa Springs—Beverly Hills—Citrus Springs
<b>99998</b>	Immokalee
<b>99998</b>	Indiantown
<b>99998</b>	Interlachen
<b>42346</b>	Jacksonville
<b>99998</b>	Jasper
<b>99998</b>	Jupiter Farms
<b>99998</b>	Key Largo
<b>99998</b>	Key West

<b>FHWA Code</b>	<b>Name</b>
<b>99998</b>	Keystone Heights
<b>45451</b>	Kissimmee
<b>99998</b>	LaBelle—Port LaBelle
<b>45937</b>	Lady Lake—The Villages
<b>99998</b>	Lake Butler
<b>99998</b>	Lake City
<b>99998</b>	Lake Placid
<b>46828</b>	Lakeland
<b>48799</b>	Leesburg—Eustis—Tavares
<b>99998</b>	Live Oak
<b>99998</b>	Maccleenny
<b>99998</b>	Marathon
<b>99998</b>	Marianna
<b>99998</b>	Marion Oaks
<b>56602</b>	Miami
<b>99998</b>	Nassau Village-Ratliff
<b>63838</b>	North Port—Port Charlotte
<b>64567</b>	Ocala
<b>99998</b>	Okeechobee—Taylor Creek
<b>99998</b>	Orangetree
<b>65863</b>	Orlando
<b>99998</b>	Pahokee
<b>99998</b>	Palatka
<b>67105</b>	Palm Bay—Melbourne
<b>67134</b>	Palm Coast—Daytona Beach—Port Orange

<b>FHWA Code</b>	<b>Name</b>
<b>67294</b>	Panama City
<b>99998</b>	Panama City Northeast
<b>68482</b>	Pensacola
<b>99998</b>	Perry
<b>99998</b>	Poinciana
<b>99998</b>	Poinciana Southwest
<b>71479</b>	Port St. Lucie
<b>99998</b>	Quincy
<b>99998</b>	Rainbow Lakes Estates
<b>79606</b>	Sarasota—Bradenton
<b>80400</b>	Sebastian—Vero Beach South—Florida Ridge
<b>80416</b>	Sebring—Avon Park
<b>84024</b>	Spring Hill
<b>77230</b>	St. Augustine
<b>99998</b>	Starke
<b>99998</b>	Sugarmill Woods
<b>86464</b>	Tallahassee
<b>86599</b>	Tampa—St. Petersburg
<b>87787</b>	Titusville
<b>99998</b>	Wauchula
<b>96697</b>	Winter Haven
<b>99998</b>	Woodville
<b>99998</b>	World Golf Village
<b>99998</b>	Yulee
<b>98182</b>	Zephyrhills



## FEATURE 118

### HPMS

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	Yes	No	Length	Yes	Yes
Responsible Party for Data Collection		District Planning			

**Definition/Background:** The Highway Performance Monitoring System (HPMS) is submitted to FHWA annually on the status of the public road network. Characteristics within this feature are only used for HPMS Sampling of the network. HPMS Samples are selected based on the strata of Functional Classification, Urban Size, Urban Area, and Traffic Volume Group. The HPMS Sample Panel is statistically representative of the entire network.

### HPMS Sample Number and Type

The location and existence of the HPMS Sample is determined by coding the HPMSID Number and the HPMS Sample Type. Samples need to begin and end at physical locations that can be found in the field. The preferred practice is to use intersections or structures. However, there may be a need to use alternative locations on limited access or rural roadways such as changes in the number of lanes. Detailed instructions are included in the Chapter 4: Data Collection Process or contact the TDA HPMS Coordinator for assistance.

### HPMSIDNO | HPMS SAMPLE ID NUMBER

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
Primary Key	N/A	FHWA	All HPMS standard samples and all donut samples.	N/A	N/A

**Definition/Background:** Denotes the 12-digit number uniquely identifying the sample section. This number cannot be changed once assigned by the HPMS Coordinator (TDA).

**How to Gather this Data:** Identify and record the unique HPMS ID number, 12-digit number.

#### HPMS ID NUMBER

99-000-010-1275

990900010025

Even if a roadway section that contains a sample is renumbered, the HPMS ID number will remain the same. Since when created, the HPMS ID uses the first eight digits of the roadway ID, the two numbers will no longer share those eight digits in common.

**Special Situations:** All characteristics for samples in Feature 118 should be coded to the same milepoints as HPMSIDNO.

All samples are permanent except in the following cases:

- The roadway becomes functionally classified as a rural minor collector, rural local, or urban local.

- The roadway is physically removed.
- As determined by the sample adequacy software.

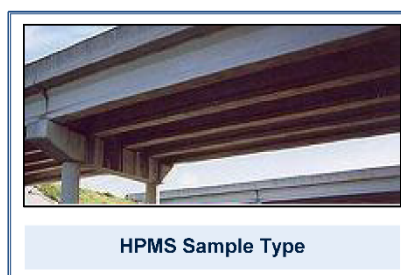
**Value for HPMS Sample ID Number:** 12 Bytes: XXXXXXXXXXXXX—Record the 12-digit HPMS ID number

## LOADTDEV | HPMS SAMPLE TYPE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	HPMS Coordinator (TDA)	HPMS samples to address under sampling or samples totally on structures or the sample will remain stationary. Effective August 2017.	N/A	N/A

**Definition/Background:** HPMS Sample Type indicates the situation where a sample requires additional review by Central Office when changes are made and is coded by either Central Office or the District.

**How to Gather this Data:** Compare the sample milepoints to the structure milepoints and record code 2 if the sample milepoints are inside of the structure milepoints. Verify the BRIDGENO in Feature 258. Stationary samples will be coded 3 by TDA when a sample is selected to address a unique sample adequacy issue. Stationary samples can begin or end at an administrative feature, including urban boundaries, traffic flow breaks, and changes in number of lanes.



If any of the sample milepoints are outside of the structure milepoints or the sample is not stationary, do not input a value for HPMS Sample Type.

**Special Situations:** When roadway changes are made that require sample milepoint adjustments on stationary samples the sample must be checked against the sample adequacy in the FHWA HPMS software.

Codes	Descriptions
2	Sample totally on structure
3	Stationary sample (Effective August 2017)

## Intersections

There are three types of At Grade Intersections Other, Stop and Signal.

All examples have been updated to reflect the changes to coding multiple entrances to large facilities. Effective September 2019.

### ATGROTHR | OTHER OR NO CONTROL AT-GRADE INTERSECTIONS

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
33	N/A	FHWA	HPMS standard samples on partial or no access control.	N/A	N/A

**Definition/Background:** Denotes the number of intersections without stop signs and traffic signals for each sample.

**Cross-Reference/Tolerance:** 1

**How to Gather this Data:** Code for both sides of the roadway.

Include the last intersection on a sample and not the first one.



Include all at grade others for facilities with multiple entrances and exits. Effective September 2019.

Include the intersection in your count if:

- It has no controls (i.e., no stop signs or signals that cycles red, yellow and green); “or”
- It ends at the sample intersection centerline; “or”
- It has a local street name signage; “or”
- It has two opposing side roads separated by 50 feet or less along the sample; “or”
- It is from an apartment complex, shopping center, or other facility regardless if signed or gated; “or”
- It has the capabilities of a full three-cycle light (red, yellow, green) but is predominantly used as a flashing yellow light “or”
- It has a flashing yellow light; “or”
- It is a round-about.

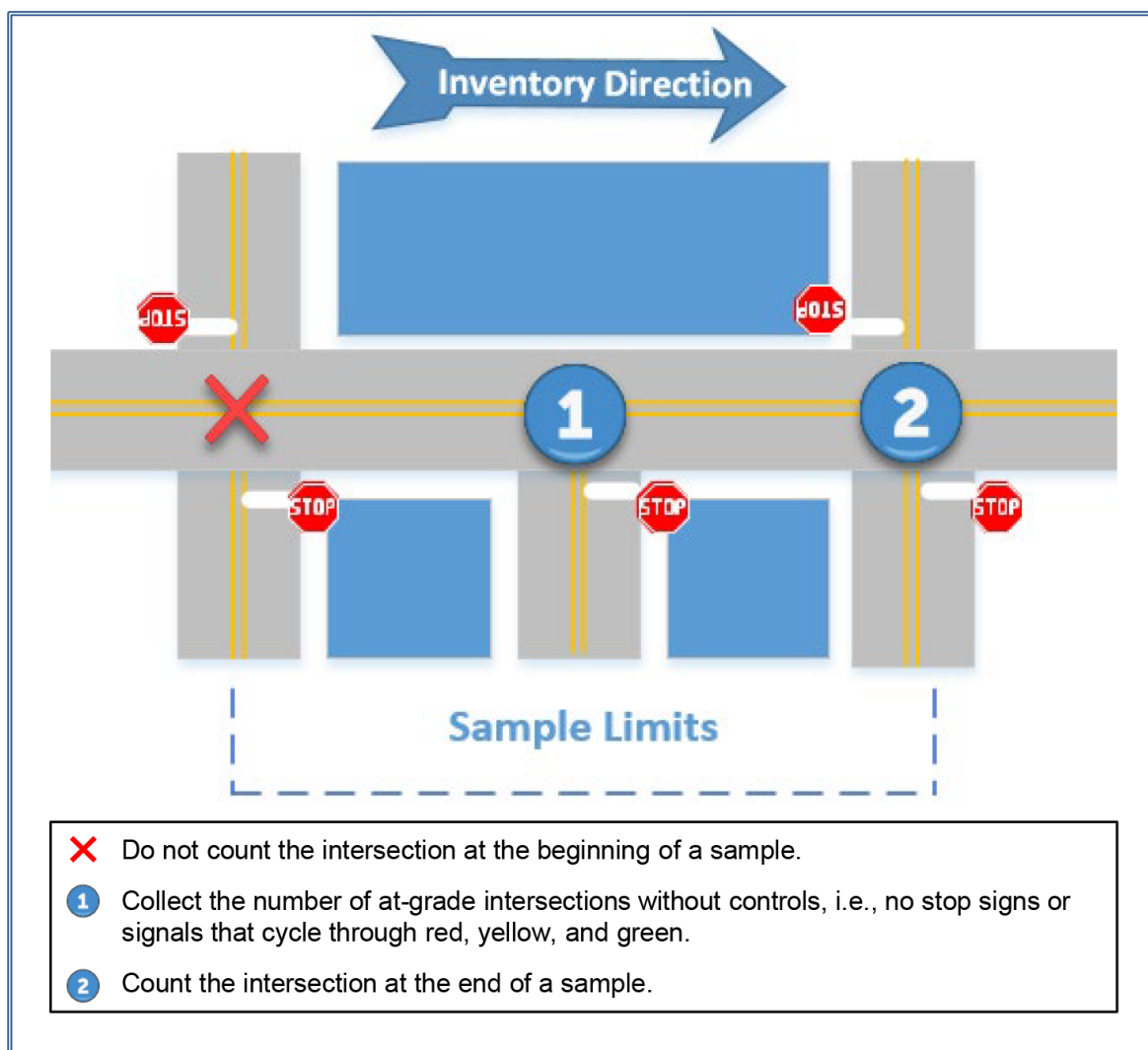
**Special Situations:** Do not include an intersection in the count under any of the following conditions:

- It is private (e.g., dirt road with no sign).
- It is at the beginning point of a sample.

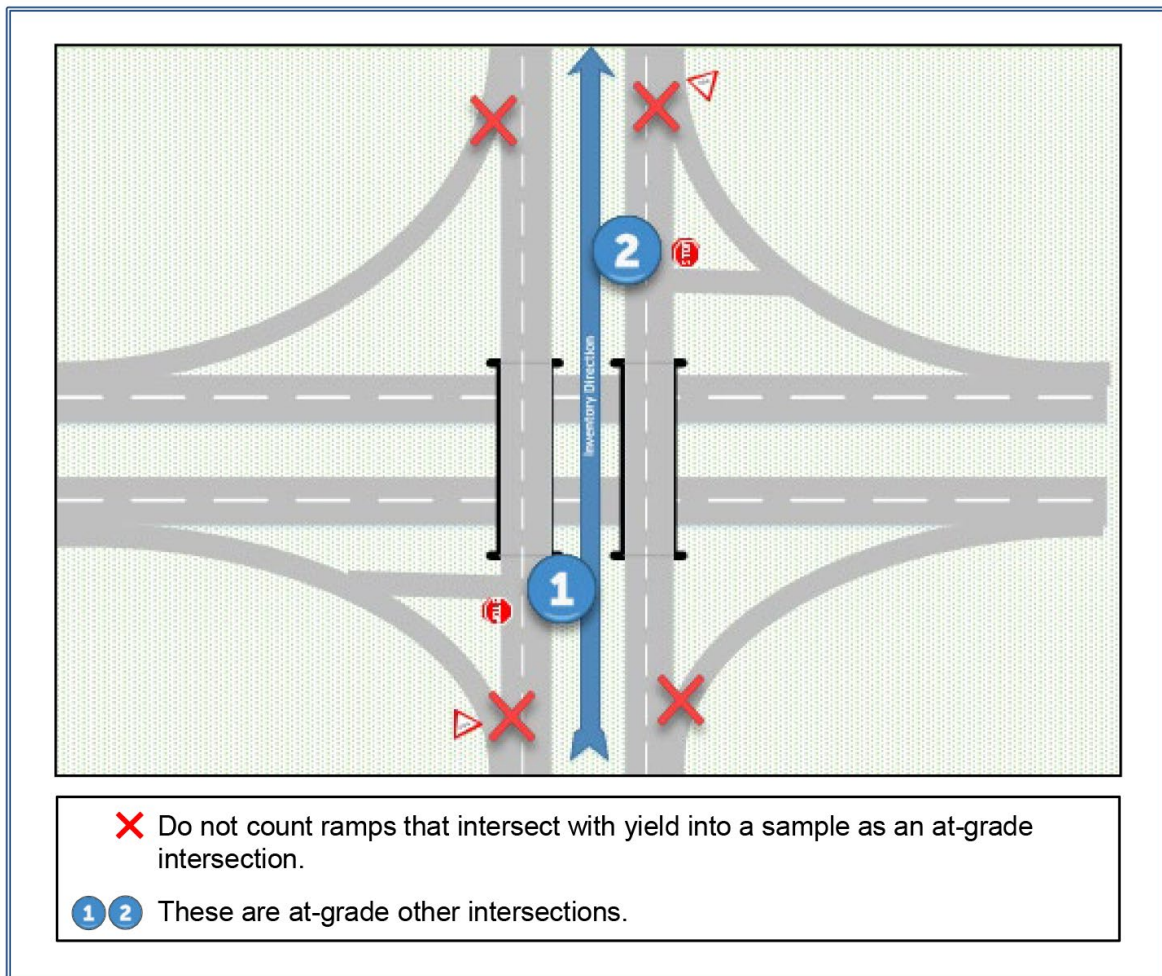
- It is a grade-separated highway (e.g., I-95). Usually the roadway spans over another via bridge and the ramps to the highway intersections are not at-grade.
- It is a yield such as a ramp, exit, or turn bay.
- It is a driveway for one or two businesses or dwellings and has a stop sign.
- It is a mid-block pedestrian crossing.

**Value for Other or No Control At-grade Intersections:** 2 Bytes: XX—Number of intersections as defined, e.g., 03

### AT-GRADE OTHER INTERSECTIONS (IN GENERAL)

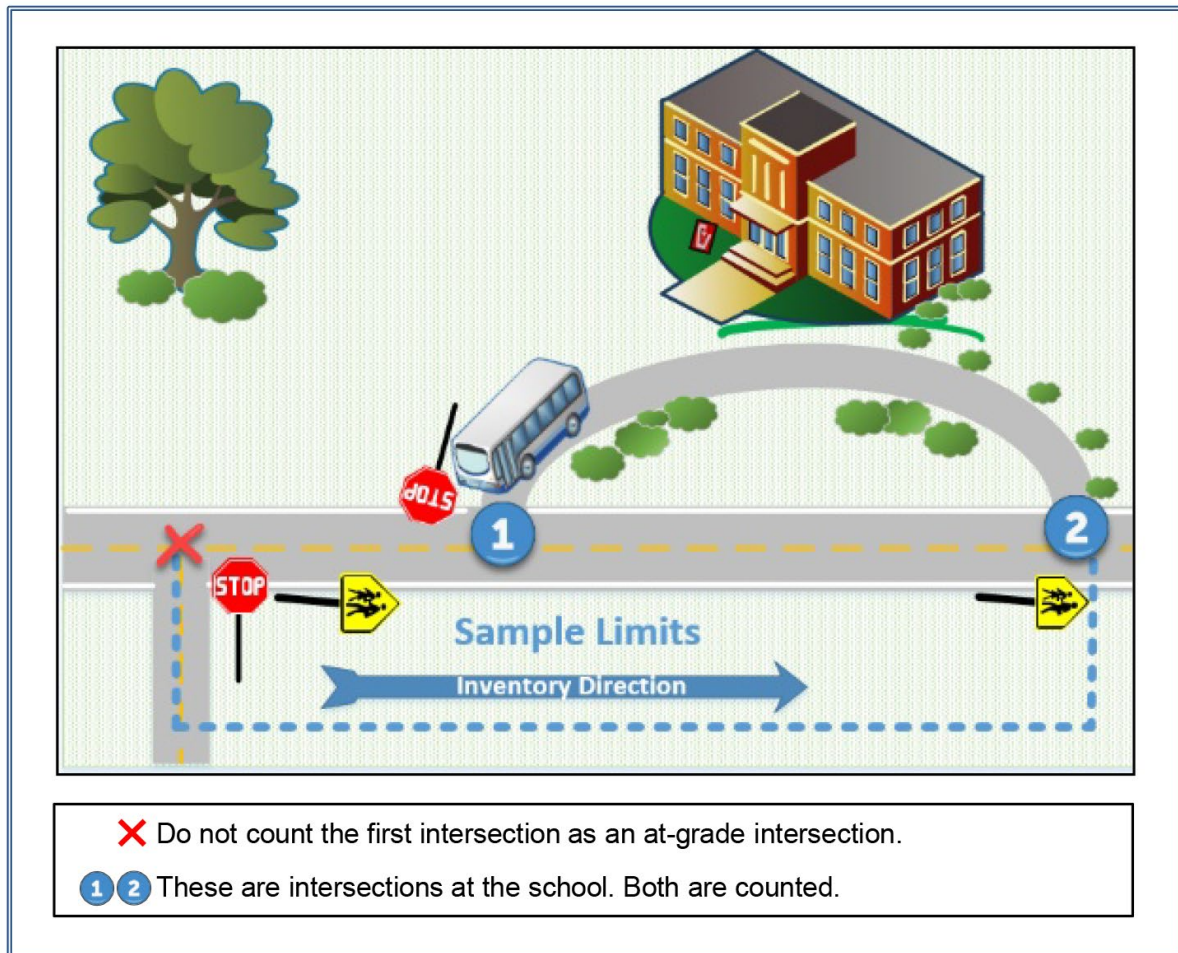


## INTERSECTIONS ON ROADWAYS AT INTERCHANGES

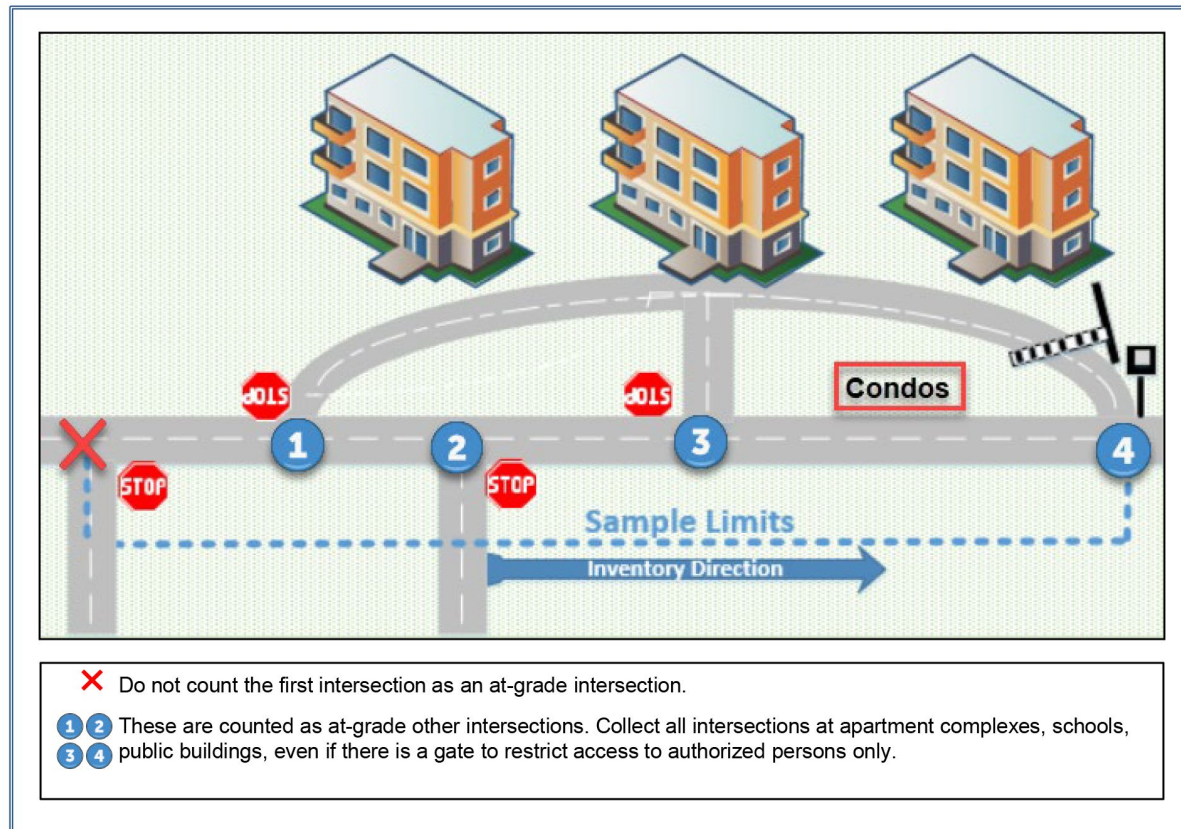




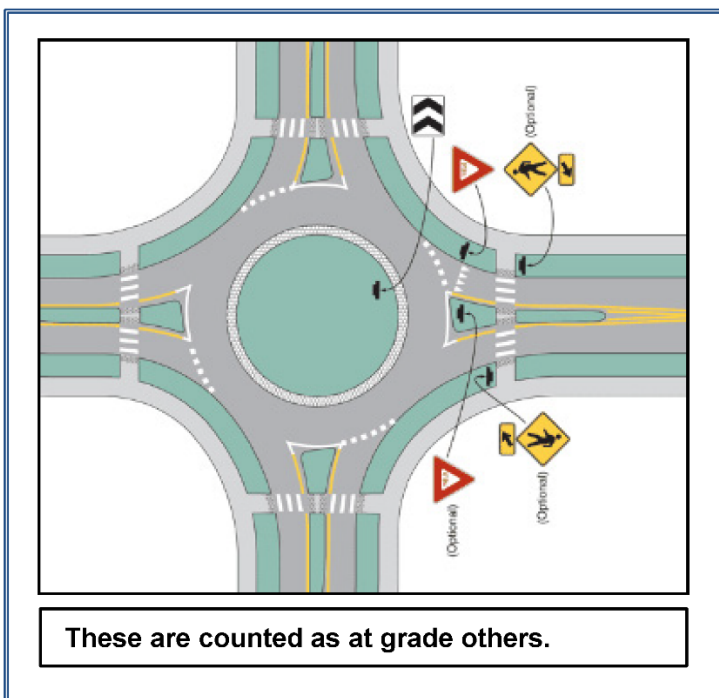
## INTERSECTIONS AT SCHOOLS



## INTERSECTIONS AT APARTMENT COMPLEXES, CONDOS, AND OTHER LIKE SCENARIOS



## ROUNABOUT INTERSECTIONS



## ATGRSIG | SIGNALS AT-GRADE INTERSECTIONS

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
31	N/A	FHWA	HPMS standard samples on partial or no access control.	N/A	N/A

**Definition/Background:** Denotes the number of signalized at-grade intersections.

**How to Gather this Data:** Identify the number of at-grade intersections that have signals must cycle through red, yellow, and green. Code both sides of roadway. Include the last intersection on a sample and not the first one.

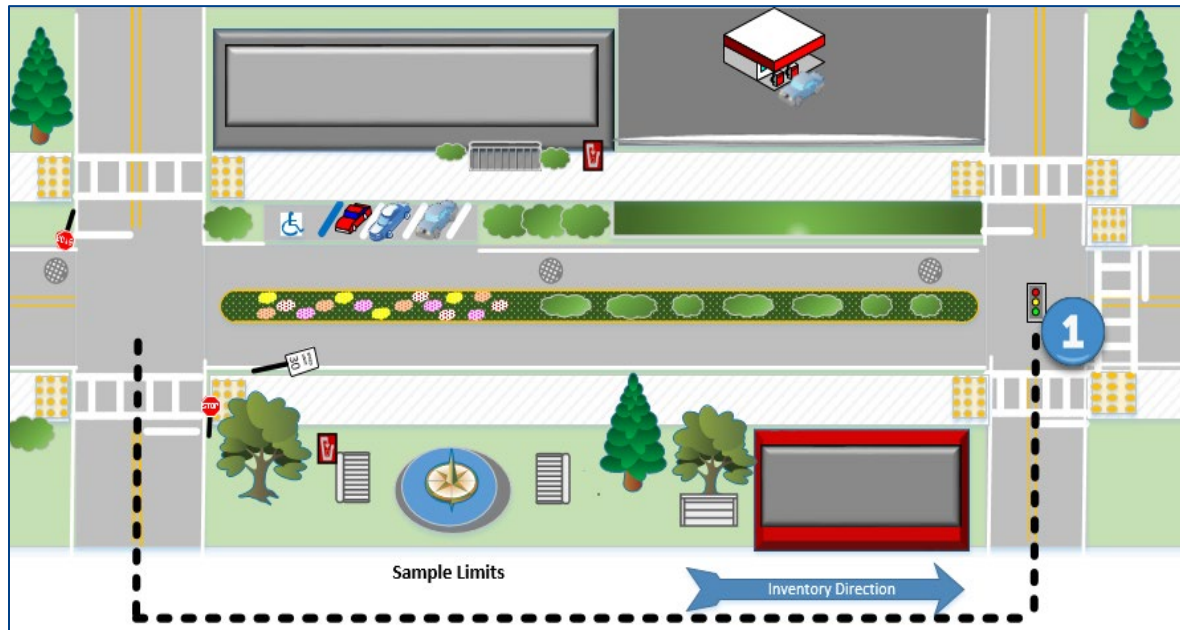
**Special Situations:** Do not include an intersection in the count under any of the following conditions:



- The intersection has the capabilities of a full three-cycle light (red, yellow, green) that is predominantly used as a flashing yellow light.
- The intersection exists for emergency vehicles (e.g., at fire stations).
- The intersection is at the beginning point of a sample.
- The cross traffic is non-vehicular:
  - Mid-block signals for pedestrian crossings
  - Draw bridge signal for boat crossings

**Value for Signals at At-grade Intersections:** 2 Bytes: XX—Number of intersections as defined, e.g., 03



**EXAMPLE****SIGPREV | PREVAILING TYPE OF SIGNALIZATIONS**

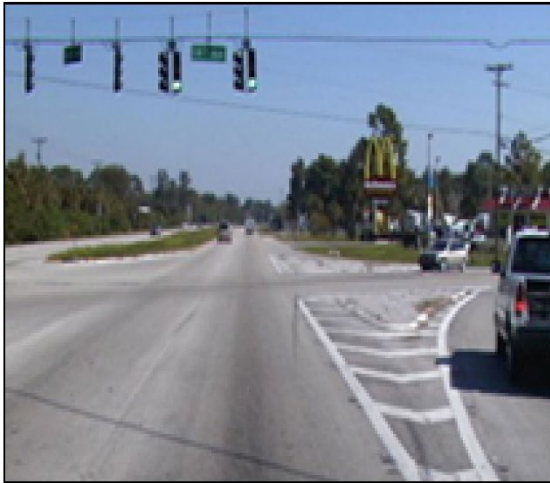
HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
29	N/A	FHWA	HPMS standard samples on urban roadways with signals; optional for rural standard samples.	N/A	N/A

**Definition/Background:** Denotes how traffic lights are triggered.

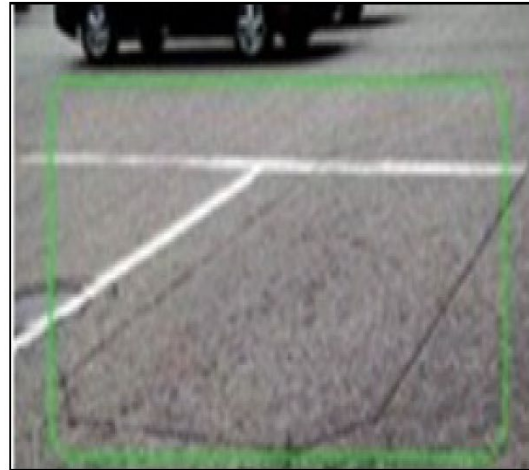
**How to Gather this Data:** Observe in field or contact local traffic engineering personnel. Record both sides of roadway.

Codes	Descriptions
1	Uncoordinated Fixed Time (may include pre-programmed changes for peak or other time periods)
2	Uncoordinated Traffic Actuated (in inventory direction)
3	Coordinated Progressive (coordinated through several intersections)
4	Coordinated Real-time Traffic Adaptive (computer systems used to update timing plans continuously)
9	No signal systems exist

## EXAMPLES



1: Uncoordinated Fixed Time



2: Uncoordinated Traffic Actuated



3: Coordinated Progressive



4: Coordinated Real-time Traffic Adaptive

## ATGRSTOP | STOP SIGNS AT-GRADE INTERSECTIONS

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
32	N/A	FHWA	HPMS standard samples on partial or no access control.	N/A	N/A

**Definition/Background:** Denotes the number of at-grade intersections with either stop signs or flashing red lights.

**How to Gather this Data:** Identify the number of at-grade intersections that have stop signs or flashing red signals controlling the route being inventoried. Include the last intersection on a sample and not the first one.

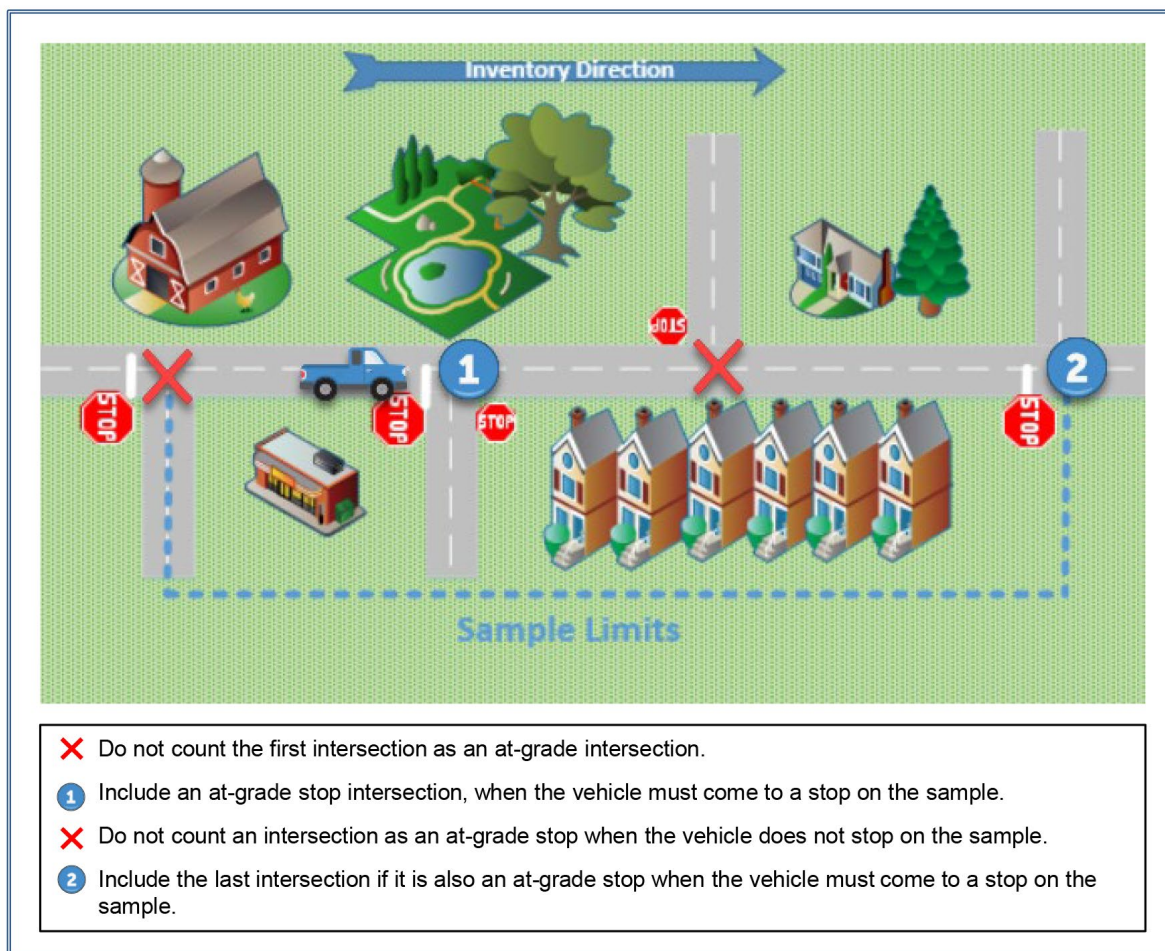
**Special Situations:** Do not include an intersection in the count under any of the following conditions:

- If the stop sign is on an intersecting roadway and not on the roadway being inventoried.
- If the flashing light is yellow on the roadway being inventoried.
- If an intersection is at the beginning point of a sample.
- It is a mid-block pedestrian crossing.



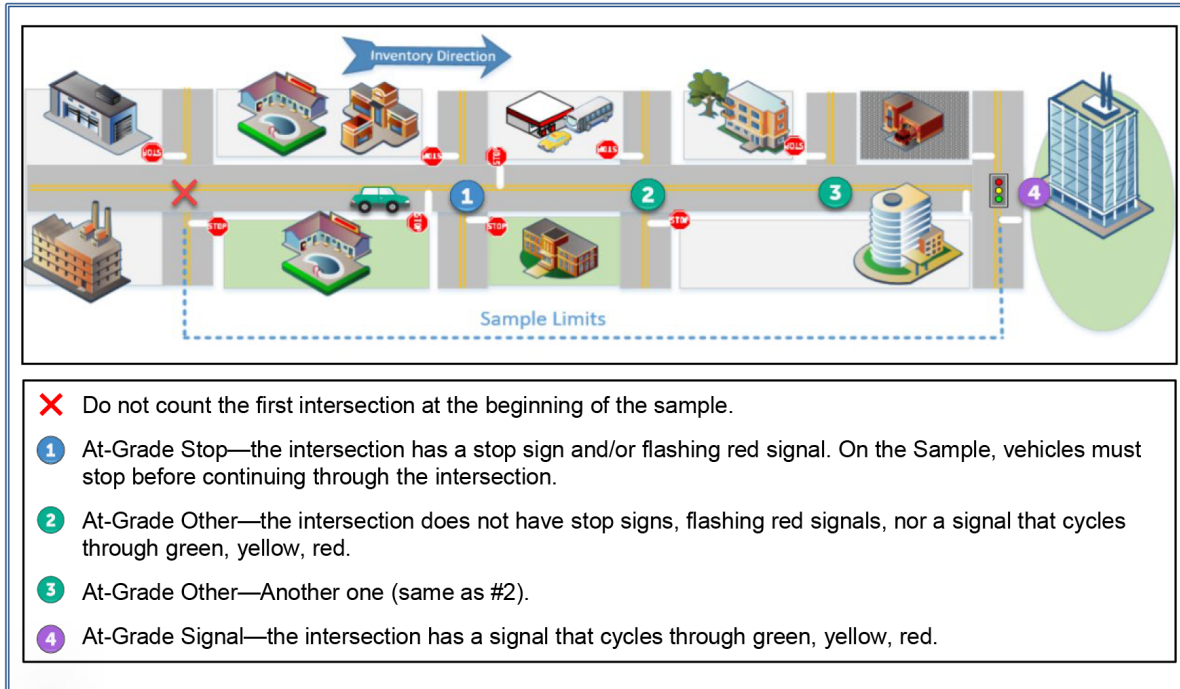
**Value for Stop Signs at At-grade Intersections:** 2 Bytes: XX—Number of intersections as defined, e.g., 03

## AT-GRADE STOP INTERSECTIONS





## EXAMPLE | ALL AT GRADE INTERSECTION TYPES (SIGNAL, STOP, AND OTHER)



Below are some examples that are **NOT** At-Grade Intersections.



Pedestrian Crossings not associated with an intersection, with or without signage or signals to stop vehicles are not At-Grade Intersections.



A signal for a drawbridge that stops through traffic to allow vessels to navigate the channel past the structure is not an At-Grade Intersection.

## TURNLANL | TURN LANE LEFT

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
13	N/A	FHWA	HPMS standard samples on urban roadways unless there are no intersections coded in ATGRSIG, ATGRSTOP, or ATGROTHR.	N/A	N/A

**Definition/Background:** Denotes type of left turn lane.


**How to Gather this Data:** Only code this characteristic for samples with intersections. Record the code for turn lanes at a signalized or stop sign intersection that is critical to the flow of traffic; otherwise enter the code that best describes the peak-hour turning lane situation for typical at-grade intersections on that sample. **Record right side of roadway only, in the inventory direction.**

**Special Situations:** Do not code this characteristic if there are no intersections for the sample.



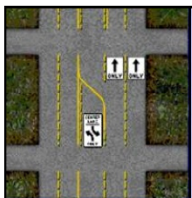
Codes	Descriptions
1	Multiple turning lanes/bays exist
2	Continuous left turn lane
3	Single left turn lane/bay
4	No left turn lanes/bays exist (intersections exist with left turns permitted)
5	No left turn allowed during peak

## EXAMPLES




Turns permitted; multiple exclusive left turn lanes exist. Through movements are prohibited in these lanes. Multiple turn lanes allow for simultaneous turns from all turn lanes.

**1: Multiple turning lanes/bays exist**




Turns permitted; a continuous left turn lane exists from intersection to intersection. Through movements are prohibited in this lane.

**2: Continuous left turn lane**



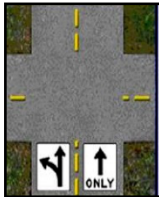
Turns permitted; a single exclusive left turn lane exists.

**3: Single left turn lane/bay**




U-Turns permitted, a single exclusive left turn lane exists.

**3: Single left turn lane/bay. Effective September 2019.**



Turns permitted; no exclusive left turn lanes exist

**4: No left turn lanes/bays exist (Intersections exist with left turns permitted)**



No left turns are permitted during the peak period.

**5: No left turn allowed during peak**



## TURNLANR | TURN LANE RIGHT

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
12	N/A	FHWA	HPMS standard samples on urban roadways unless there are no intersections coded in ATGRSIG, ATGRSTOP, or ATGROTHR.	N/A	N/A

**Definition/Background:** Denotes type of right turn lane.

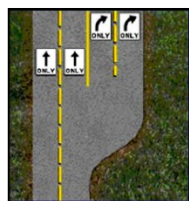
**How to Gather this Data:** Only code this characteristic for samples with intersections. Record the code for turn lanes at a signalized or stop sign intersection that is critical to the flow of traffic; otherwise enter the code that best describes the peak-hour turning lane situation for typical at-grade intersections on that sample. **Record right side of roadway only in the inventory direction.**



**Special Situations:** Do not code this characteristic if there are no intersections for the sample.

Codes	Descriptions
1	Multiple turning lanes/bays exist
2	Continuous right turn lane
3	Single right turn lane/bay
4	No right turn lanes/bays exist (intersections exist with right turns permitted)
5	No right turn allowed during peak

## EXAMPLES



Turns permitted; multiple exclusive right turn lanes exist. Through movements are prohibited in these lanes. Multiple turn lanes allow for simultaneous turns from all turn lanes.

**1: Multiple turning lanes/bays exist**



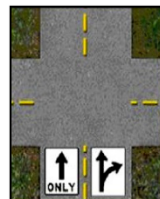
Turns permitted; a continuous right turn lane exists from intersection to intersection. Through movements are prohibited in this lane.

**2: Continuous right turn lane**



Turns permitted; a single exclusive right turn lane exists.

**3: Single right turn lane/bay**



Turns permitted; no exclusive right turn lanes exist

**4: No right turn lanes/bays exist  
(Intersections exist with right turns permitted)**



No right turns are permitted during the peak period.

**5: No right turn allowed during peak**

## Curves, Grades, Sight Distance, and Terrain

Curves by Class, Grades by Class, Passing Sight Distance, and Terrain are used to indicate the general roadway alignment.

### CURCLASX | CURVES BY CLASS (X=A-F)

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
43	N/A	FHWA	HPMS standard samples on paved rural principal and minor arterials and urban principal arterials.	N/A	N/A

**Definition/Background:** Denotes the length of curves for a sample. The horizontal degree of curvature can be obtained from Feature 221 in RCI or by reviewing construction plans. A curve class C with a curvature of 5°30' would have a HRZDGCRV Feature 221 with an English value of 005D30'00.00.” For further information on reading the curve data from plans, contact the Construction Office for assistance and training.

Characteristic	Horizontal Degree of Curvature
CURCLASA	0°00'–3°29'
CURCLASB	3°30'–5°29'
CURCLASC	5°30'–8°29'
CURCLASD	8°30'–13°59'
CURCLASE	14°00'–27°59'
CURCLASF	28°00' and above

**Important When Gathering:** The sum of all curves must equal the length of the sample.

**How to Measure:** Each curve is classified by its degrees into a range class, e.g., CURCLASA-F. The measured length is summed for all matching curves and coded for the appropriate CURCLASx. The sum of all CURCLASx will equal the sample length. When a curve begins or ends outside of a sample, only count the portion of the curve inside of the sample.

**How to Gather this Data:** Record the curvature as a seven-digit number. Code 01 as a placeholder for positions 1 and 2. Code the miles in positions 3-7 without a decimal. CURCLASB—0102745 is a curve between 3°30' to 5°29' for 2.745 miles. **Only code right side of roadway.**

**Special Situations:** Do not count quantity of curves.

**Value for Curve Class:** 7 Bytes: 01XXXXX—(e.g., 0102745 is 2.745 miles)

## GRACLASX | GRADES BY CLASS (X=A-F)

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
45	N/A	FHWA	HPMS standard samples on paved rural principal and minor arterials and urban principal arterials.	N/A	N/A

**Definition/Background:** Denotes the degree of roadway grade, vertical slope of roadway segment.

**Important When Gathering:** The sum of all grades must equal the length of the sample.

**How to Gather this Data:** Collected from construction plans where possible. If the RCI input screen requires the first two digits to be coded, use 01. The last five digits should be the total length of the grades in miles, e.g., GRACLASA with a value of 0101235 is grade class A for 1.235 miles.

Characteristic	Percent of Grade
GRACLASA	0.0%–0.4%
GRACLASB	0.5%–2.4%
GRACLASC	2.5%–4.4%
GRACLASD	4.5%–6.4%
GRACLASE	6.5%–8.4%
GRACLASF	8.5% and above

Record the length as a seven-digit number with three decimal places. The last five digits should be the total length of the grades in miles, e.g., GRACLASA with a value of 0101235 is grade class A for 1.235 miles using 01 as a placeholder for the first two digits. When a grade begins or ends outside of a sample, only count the portion of the grade that is within the sample section. The sum of all grade lengths should be equal to the total length of the sample section. **Only code right side of roadway.**

**Special Situations:** Do not count quantity of grades.

**Value for Grade Class:** 7 Bytes: 01XXXXX—(e.g., 0101235 is 1.235 miles)

## SIT1500 | % OF PASSING SIGHT DISTANCE $\geq 1500$ FEET

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
46	N/A	FHWA	HPMS standard samples on rural, paved two-lane sample sections.	N/A	N/A

**Definition/Background:** Denotes percent of roadway with adequate sight-distance for passing. Only code for two-lane paved rural roadways in the inventory direction (Dec 2018).

**How to Gather this Data:** Record the percent of the section length that has a passing sight distance of 1,500 feet or more as indicated by the striping on the roadway in the inventory direction. Use the Distance Measuring Instrument (DMI) or measuring wheel to measure the sight distance. Effective September 2019.

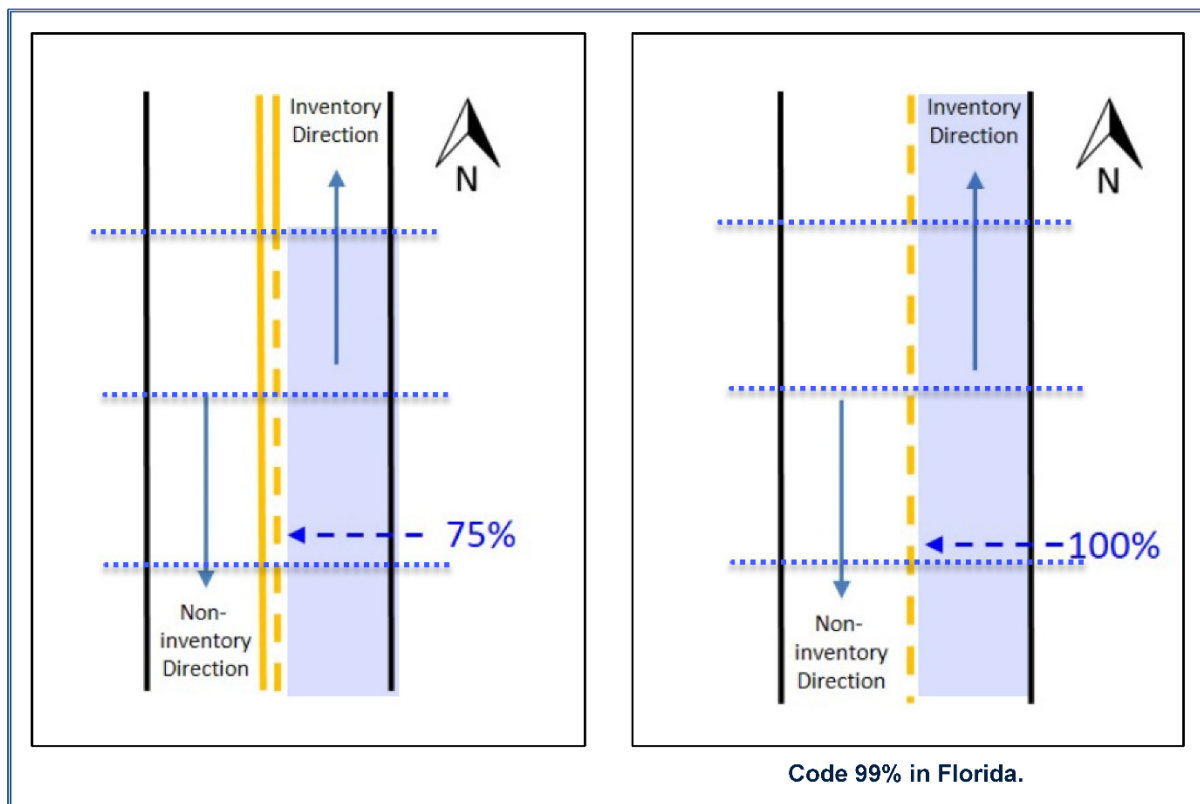


Code the percentage to the nearest ten percent for the sample. Code 0 for non-applicable sections such as very curved or very hilly sections without passing zones.

**Special Situations:** Codes 99 for 100 percent on samples because this is a two-digit field.

**Value for Percentage of Passing Sight Distance:** 2 Bytes: XX—Record percentage 00-99 percent, e.g., 30 for 30 percent

### SIT1500 EXAMPLES



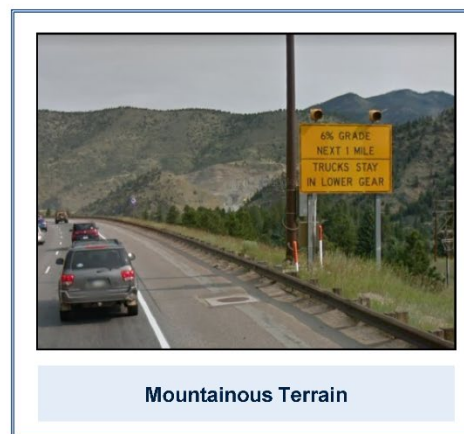
Source: FHWA Office of Operations.

## TERRAIN | TYPE OF LAND TERRAIN

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
44	N/A	FHWA	HPMS standard samples on rural roadways.	N/A	N/A

**Definition/Background:** Denotes whether a roadway segment is rolling or flat. The code of rolling refers to areas, i.e., North Carolina and West Virginia, where large semi-trucks are not able to maintain normal highway speeds on hills.

**How to Gather this Data:** Code 1 for flat, 2 for rolling terrain. Rolling terrain is where large trucks have to reduce their speed substantially below that of cars. Record both sides of roadway.



Mountainous Terrain

Codes	Descriptions
1	Level
2	Rolling

*Note: Florida does not have Mountainous Terrain—it is shown to emphasize what that might look like with warning signage.*

## Peak Lanes, Parking, Widening Obstacles and Widening Potential

### PEAKLANE | NUMBER OF LANES IN PEAK DIRECTION IN PEAK HOUR

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
10	N/A	FHWA	All HPMS standard samples.	N/A	N/A

**Definition/Background:** Denotes the number of lanes flowing in peak direction during peak traffic hours.

**How to Gather this Data:** Identify and record the number of lanes that flow in the peak direction during the peak hours of traffic flow. Include reversible lanes, parking lanes, or shoulders that are legally used for through traffic, whether for Single Occupancy Vehicle (SOV) or High Occupancy Vehicle (HOV) operation. This includes the associated managed lanes in the peak direction. Effective September 2019.



- On urban roadways, code the peak direction.
- On rural roadways (2 or 3 lanes), code both directions.
- On rural roadways (4 lanes), code the peak direction.

**Special Situations:** Peak direction may be different than the normal inventory direction.

Codes	Descriptions
1	One lane
2	Two lanes
3	Three lanes
4	Four lanes
5	Five lanes
6	Six Lanes
7	Seven Lanes
8	Eight Lanes
9	Nine Lanes



## TYPEOP | TYPE OF PARKING

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
40	N/A	FHWA	HPMS standard samples on urban roadways that predominantly have parking within the through lanes or on paved shoulders during the peak hour.	N/A	N/A

**Definition/Background:** Provides specific information about the presence of peak parking on urban sample roadway sections. It is used in investment requirements modeling to calculate capacity.

**How to Gather this Data:** Enter the code that best reflects the predominant type of peak hour parking that exists within the sample. Parking may be within the through lanes or on the paved shoulders.

Do not include parking if it exists beyond the paved shoulder.

Do not include parking if parking spaces are used as through lanes or turning lanes during the peak hour.

Do not include parking on limited access facilities, such as interstates, freeways, and expressways.

Codes	Descriptions
1	Parking Permitted One Side
2	Parking Permitted Both Sides
3	No Parking Allowed

## EXAMPLES



**1: Parking Permitted One Side**



**2: Parking Permitted Both Sides**



**3: No Parking Allowed**



## WIDOBST | WIDENING OBSTACLES

**Definition/Background:** Obstacle to roadway widening within **100 feet** of the edge of the through lanes, which are present in either direction on the side of the section. See below for additional definition for each characteristic.

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
41	N/A	FHWA	All HPMS standard samples.	N/A	N/A

**How to Gather this Data:** Look for and code all conditions that apply in either direction, on either side. At least one of the characteristics WIDOBSTA-G should be coded if less than 9 lanes could be added, total for both sides of the roadway, at the most restrictive point. Effective September 2019.

Only characteristic WIDOBSTX should be coded if 9 or more lanes could be added, total for both sides of the roadway, at the most restrictive point.

**Special Situations:** Multiple WIDOBSTA-G are allowed, but if WIDOBSTX is coded, none of the others may be coded. The existence of a structure such as a bridge, tunnel, or underpass impacts the cost to widen the roadway and is an obstacle. Effective September 2019. For example, they may exist for other major transportation facilities (WIDOBSTB); or to cross environmentally sensitive areas (WIDOBSTF) or for terrain restrictions (WIDOBSTD).

Code	Description
1	Yes

## WIDOBSTA | WIDENING OBSTACLES | DENSE DEVELOPMENT

Includes density and size of building to be acquired, number of people to be relocated, and the number of businesses to be acquired. Consider obstacles relative to the urban area where the sample is located.



## WIDOBSTB | WIDENING OBSTACLES | MAJOR TRANSPORTATION FACILITIES

Includes major rail lines, canals, airports, and major natural gas and oil pipelines.

## WIDOBSTC | WIDENING OBSTACLES | OTHER PUBLIC FACILITIES

Includes hospitals, museums, major public office buildings, military bases, schools, and universities.





### **WIDOBSTD | WIDENING OBSTACLES | TERRAIN RESTRICTIONS**

Includes geographic features requiring significant excavation, fill, or tunneling.

### **WIDOBSTE | WIDENING OBSTACLES | HISTORIC OR ARCHAEOLOGICAL SITES**

Includes historic buildings, historic land, large monuments, cemeteries, and other known archeological sites.

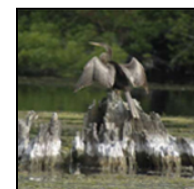


### **WIDOBSTF | WIDENING OBSTACLES | ENVIRONMENTALLY SENSITIVE AREAS**

Includes scenic landmarks, wetlands, bodies of water, canals, areas with protected species, and designated scenic routes and byways.

### **WIDOBSTG | WIDENING OBSTACLES | PARKLAND**

Includes National, State, and local parks.



### **WIDOBSTX | WIDENING OBSTACLES | NONE (ROAD CAN BE WIDENED)**

No obstacles present.

## WIDPOTNL | WIDENING POTENTIAL LANES

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
42	N/A	FHWA	All HPMS standard samples.	N/A	N/A

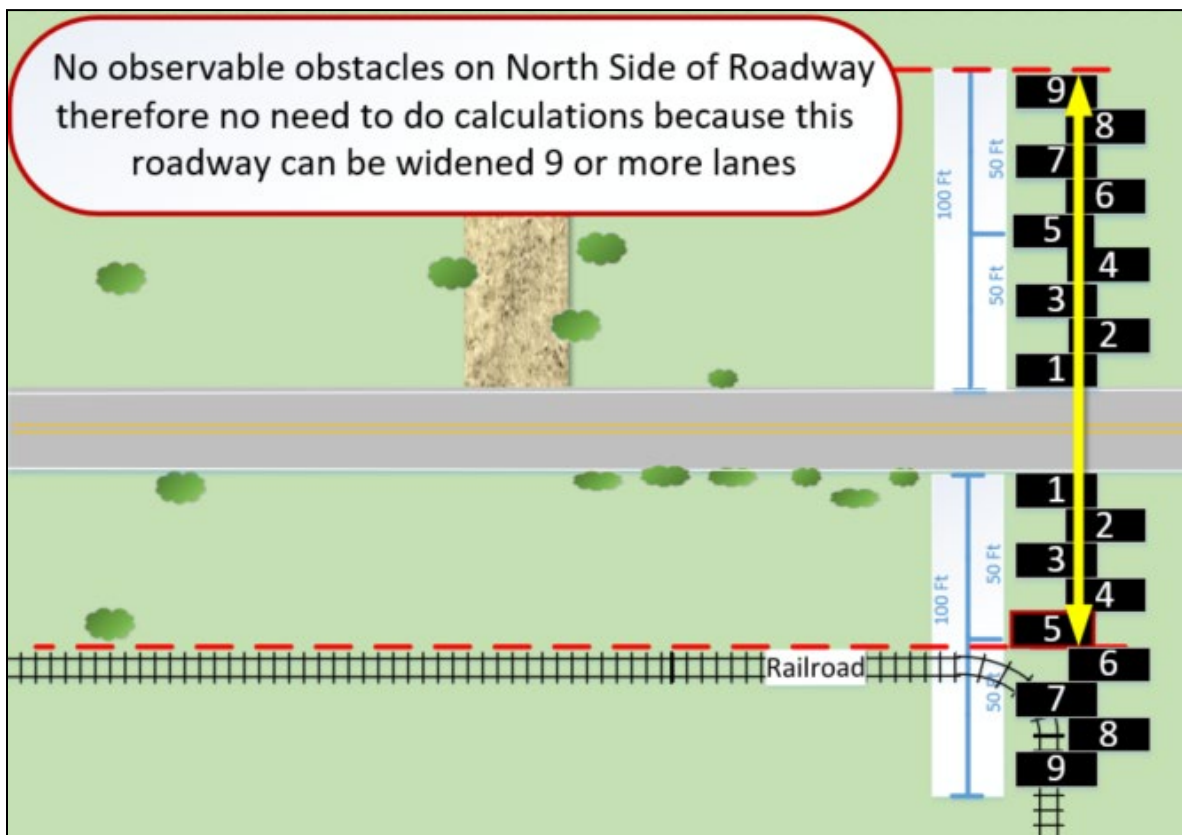
**Definition/Background:** The number of through lanes that potentially could be added. This is based on how feasible it is to widen the existing roadway based on the presence of obstacles to widening identified in WIDOBST\_ (A-G and X) and the proximity of the obstacle to the roadway. Consider medians, areas already within the existing right-of-way, and areas outside existing right-of-way to be available for widening.

**How to Gather this Data:** The widening potential for a sample is at the most restrictive area within the sample limits on either side of the road. Code for the sample length. If WIDOSTA-G is coded for this sample, record the maximum number of lanes that can be added, total for both sides of the roadway, up to 8 lanes. If WIDOBSTX is coded for the sample, then code 9 lanes for the widening potential. Effective September 2019.

**Special Situations:** Do not consider restrictions due to the current right-of-way width, or projected traffic. The ability to restripe to narrower lanes, resulting in an additional lane on a multilane facility, does not constitute widening feasibility. The cost of adding capacity to sections or corridors with limited widening feasibility is assumed to be significantly more costly than other, more routine capacity improvements. Effective September 2019.

Code Lanes	Descriptions
0–8	Number of lanes that could be added (total in both directions) WIDOBSTA-G coded.
9 (or more)	Nine or more lanes could be added (total in both directions) WIDOBSTX coded.

## EXAMPLE WHERE CALCULATIONS ARE NOT NECESSARY

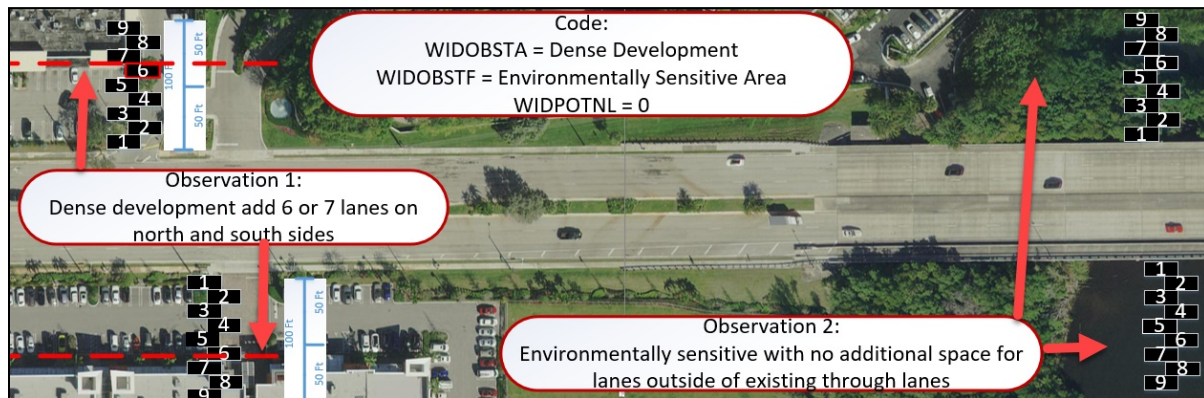


Steps	Descriptions
Identify	No obstacles on one side within 100 feet of outside edge of roadway
Find	The most restrict location on the sample
WIDPOTNL Results	9 Potential Lanes
Widening Obstacles (code only None)	WIDOBSTX (none) WIDOBSTB (transportation)—not coded because 9 or more lanes can be added

### Calculation for Lane Estimation

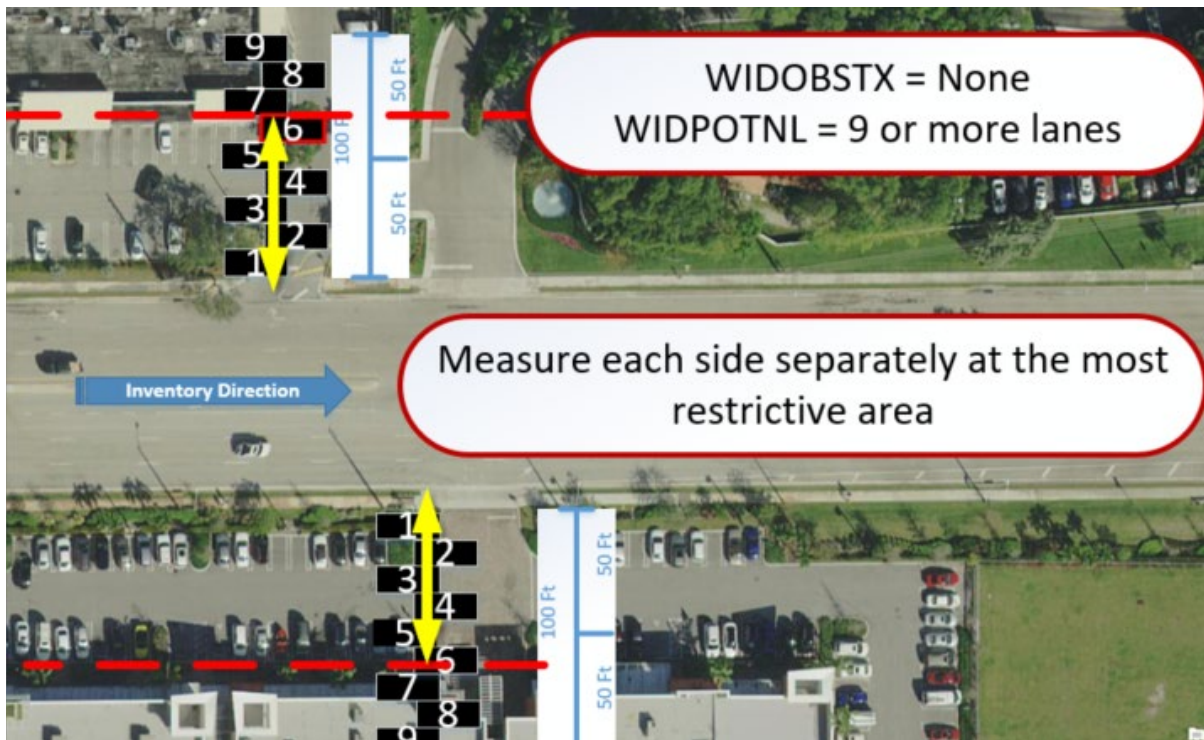
To calculate the number of potential lanes that can be added on the inventory direction of the roadway, measure to the nearest obstacle lateral from the outside through lane, then divide by 11 feet (minimum lane width) and round down. Next, do the same process for the non-inventory direction and sum both potential number of lanes for both directions for the total that is entered as the “Widening Potential.” Effective September 2019.

## EXAMPLE



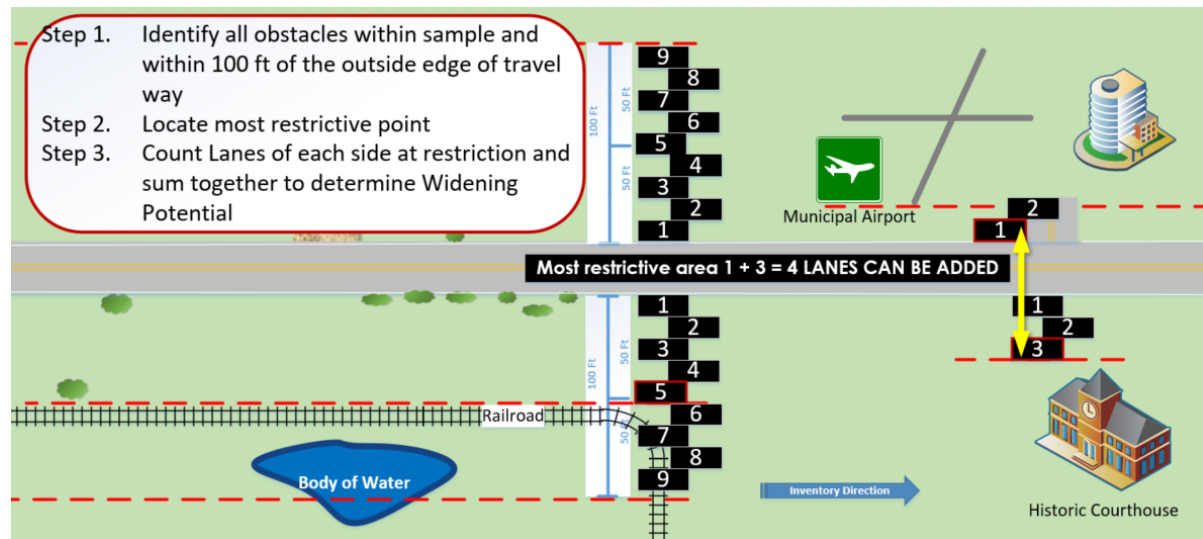
Steps	Descriptions
Identify	All obstacles on both sides within 100 feet of outside edge of roadway.
Find	The most restrict location on the sample (above is at the bridge over the environmentally sensitive area).
Inventory Direction	Measures from the outside through lane on the bridge to the bridge railing. 5 ft./11 ft. = 0.45 (rounded down to <b>0 potential lanes</b> on this side)
Opposite Direction	Measures from the outside through lane on the bridge to the bridge railing. 5 ft./11 ft. = 0.45 (rounded down to <b>0 potential lanes</b> on this side)
WIDPOTNL Results	<b>0 Potential Lanes</b> can be added = 0 on Inventory Direction + 0 on Opposite Direction.
Widening Obstacles (code all present)	WIDOBSTA (business—dense development), WIDOBSTF (body of water), and WIDOBSTF (river/marsh area).

## EXAMPLE



Steps	Descriptions
Identify	All obstacles on both sides within 100 feet of outside edge of roadway.
Find	The most restrict location on the sample (above is at the businesses that are dense development in this scenario).
Inventory Direction	Measures 58 feet from the outside through lane to the structures. 58 ft./11 ft. = 5.2 (rounded down to 5 potential lanes on this side)
Opposite Direction	Measure 65 feet from the outside through lane to the structures. If there is not fence or utilities, make a conservative measurement. 65 ft./11 ft. = 5.9 (rounded down to 5 potential lane on this side)
WIDPOTNL Results	10 Potential Lanes can be added = 5 on Inventory Direction + 5 on Opposite Direction Note: 9 is maximum Potential Lanes that can be coded—round down to 9.
Widening Obstacles (code only None)	WIDOBSTX (none). WIDOBSTA (dense development)—not coded because 9 or more lanes can be added.



**EXAMPLE**

Steps	Descriptions
Identify	All obstacles on both sides within 100 feet of outside edge of roadway.
Find	The most restrict location on the sample (above is at Airport & Historic Courthouse).
Inventory Direction	Measures 36 feet from the outside through lane to the court house/historical structure. 36 ft./11 ft. = 3.3 (rounded down to 3 potential lanes on this side)
Opposite Direction	Measure 20 feet from the outside through lane to the airport. If there is not fence or utilities, make a conservative measurement. 20 ft./11 ft. = 1.8 (rounded down to 1 potential lane on this side)
WIDPOTNL Results	4 Potential Lanes can be added = 3 on Inventory Direction + 1 on Opposite Direction.
Widening Obstacles (code all present)	WIDOBSTB (railroad & airport), WIDOBSTF (body of water), WIDOBSTC (courthouse), WIDOBSTE (historical courthouse).

If you encounter a sample that is difficult to determine the widening potential, contact the HPMS Coordinator for assistance.

## FEATURE 119

### HPMS UNIVERSE

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C/R/L	Yes	No	Length	No	Yes
Responsible Party for Data Collection		District Planning and see characteristics for specific instructions.			

**Definition/Background:** HPMS Universe Data is collected for the purpose of HPMS and extends beyond the HPMS Sample Limits.

The characteristics in this feature are grouped by purpose to improve the usage of the handbook materials.

### Ramps

This information is coded on Ramps.

#### RAMPFC | RAMP FEDERAL CATEGORY

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
1		FHWA, HPMS	All <b>interchange</b> ramps, whether directly or indirectly connected to the mainline facilities with codes 1–7. All other ramps required code 0 for N/A. Effective September 2019.	N/A	N/A

**Definition/Background:** The federal category of the ramp, defined as the functional classification of the mainline roadway which it serves. It must be part of an interchange.

**How to Gather this Data:** Determine the functional classification of the roadways connected by the ramp, and use the higher of the two. For example, if a ramp connects an interstate to a principal arterial—other, use code 1.

**Special Situations:** Ramps that connect a mainline to a rest area, service plaza, tollbooth, or weigh station should be coded with 0 for N/A.





Codes	Descriptions
0	N/A (code N/A if this is not a grade separated ramp)
1	Interstate
2	Principal Arterial—Other Freeways and Expressways
3	Principal Arterial—Other
4	Minor Arterial
5	Major Collector
6	Minor Collector
7	Local

Every Active/Exclusive ramp requires a code. By coding N/A for when not applicable it indicates the district has reviewed the ramp for accuracy.

## Toll Roads

These are toll characteristic used only for HPMS. Where managed lanes exist, code TOLLTYPE, TOLLCHGS, HOVTYPE, and HOVNUMLN on the associated mainline roadway ID. The milepoint limits for these characteristics should exactly match the milepoints coded for the begin/end point of the managed lane. For more information on Toll Roads, see Feature 122.



## TOLLCHGS | TOLL CHARGES

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
15	FDE	FHWA, HPMS	All functionally classified roadways.	N/A	N/A

**Definition/Background:** Identifies where a toll is charged in one direction, both directions, or none on a toll facility.

**How to Gather this Data:** On segments where the begin/end points of a tolled facility are offset from one another, use code 1 to indicate that a toll is paid in one direction only. Code 2 is only valid for the limits where a toll is paid on both the left and right sides of the facility. Identify the type of toll charges that apply to each contiguous segment along a tolled facility. The entire facility must have this characteristic for the entire length.

Contact the local Government traffic operations department for locations.

Codes	Toll Charges	Descriptions
1	Toll paid in one direction only.	Identify the segment that is a contiguous facility that is tolled in one direction only.
2	Toll paid in both directions.	Identify the segment that is a contiguous facility that is tolled in both directions.
3	No Toll charged (Effective Sept 2019).	Identify the segment that allows entry and exit from the main through route without paying a toll.

## TOLLNAME | NAME OF TOLL FACILITY (SEE FEATURE 122 | FACILITY CLASSIFICATION)

This characteristic moved to Feature 122. Effective September 2019.

## TOLLTYPE | TOLL TYPE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
16		FHWA, HPMS	All functionally classified roadways.	N/A	N/A

**Definition/Background:** This identifies special lanes where tolls are charged, such as high occupancy toll (HOT) lanes. This may or may not be an HOV facility and has special lanes identified where users would be subject to tolls. HOT lanes are HOV lanes where a fee is charged, sometimes based on occupancy of the vehicle or the type of vehicle, such as buses, vans, or passenger vehicles.

**How to Gather this Data:** Match the name of the facility to the code provided by FHWA. See below.



**Special Situations:** Code for the same milepoints as TOLLROAD in Feature 122.

Codes	Descriptions
1	Toll lanes exist – not special
2	HOT lanes exist
3	Other special tolls exist

## Managed Lanes

These are coded for the **mainline roadway** that has managed lanes attached to it. The beginning and ending milepoints for each of these characteristics must exactly match the milepoints where the managed lane starts/stops along the mainline roadway ID.

### HOVNUMLN | NUMBER OF ASSOCIATED MANAGED LANES (TOTAL SUMMED FOR BOTH DIRECTIONS)

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
9	N/A	FHWA, HPMS	All functionally classified roadways. Effective September 2019.	N/A	N/A

**Definition/Background:** A Managed lane with a barrier-separated facility is divided from the general-purpose traffic lanes by a physical barrier, with access to the facility only at designated locations. This type of facility may be used as an exclusive bus way or may consist of a mix of HOV and bus vehicles. Barrier-separated lanes may be concurrent flow with one lane of travel in each direction, or can consist of a single lane as a reversible flow facility. A contraflow facility is a peak direction only facility. Underused off-peak direction capacity is converted to peak direction use during the commute period. Movable pylons or barriers are used to convert the off-peak direction general purpose travel lane for HOV peak direction use. When not used as an HOV lane, pylons may be removed, or barriers placed against the inside freeway median, so the lane can revert to general purpose traffic use.



Shoulder or parking lane(s) are sometimes used as exclusive managed lanes at pre-specified times. Interim HOV facilities are usually intended to be a temporary treatment. They are usually placed within the existing ROW on the inside or outside freeway shoulder, or through the conversion of a general-purpose travel lane and separated from the general-purpose travel lanes by a painted stripe. An interim facility will revert to general purpose traffic use during the off-peak period.

Normal through lane(s) also may be used as exclusive managed lanes during pre-specified times. The requirements for managed lanes are in effect about one-third of the day, between 6:00 and 10:00 in the morning, and 3:00 to 8:00 in the evening, Monday through Friday only. The managed lanes are available to all other passenger vehicles at all other times.

**How to Gather this Data:** Record the total number of managed lanes in both directions.

**Value for HOV Lanes:** 1 Byte: X—Record a number from 1 to 9

## HOVTYPE | ASSOCIATED MANAGED LANES OPERATION TYPE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
8	N/A	FHWA, HPMS	All functionally classified roadways. Effective September 2019.	N/A	N/A

**Definition/Background:** Type of Managed Lanes in operation, if any. This information may be available from either Managed Lane signing or presence of a large diamond shape pavement marker, such as diamond symbol. They may be toll facilities with various pricing strategies to improve the overall flow of traffic along the facility. Effective September 2019.



**How to Gather this Data:** Code for both directions to reflect existing managed lanes. If more than one type is present, use the lower code.

**Special Situations:** Managed lanes may be available for use by all vehicle types or may be exclusive to particular vehicle types (such as “bus only” or “truck only”). Effective September 2019.

Codes	Descriptions
1	Full-time, exclusive managed lane(s)
2	Part-time, through lanes used as managed lane(s) during specified time periods
3	Part-time, non-through lanes (shoulder, parking, or dedicated managed lanes) exclusive use during specified time periods

## Roadway Composition Material (Base and Surface Layers)

We recommend coding data beyond HPMS Samples for all roadway composition characteristics.

### BASETHIK | HPMS BASE COURSE THICKNESS

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
60	N/A	FHWA, HPMS	All HPMS samples, but this characteristic may be coded where known to exist beyond the sample limits.	N/A	N/A
<b>Responsible Party for Data Collection (Effective September 2019)</b>		On-system roadways—Populated by TDA Off-system roadways—District Planning			

**Definition/Background:** The thickness of the base. Base is everything between subgrade and surface course, so report the total thickness of all base layers

**How to Gather this Data:** In office—Information can be extracted from construction plans or core sample data supplied by District Soil Lab or the city or county pavement office. Enter the base thickness to the nearest inch for the roadway. Collect in the outside lane in the inventory direction.



**Value for HPMS Base Course Thickness:** 2 Bytes: XX—Record a number from 00 to 40 rounded to the nearest inch

**Special Situations:** We recommend coding this characteristic for the entire length of the roadway. Leave blank if no data available. If there are several types of base under a roadway, report the total thickness of all base layers.

### BASETYPE | HPMS BASE TYPE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
59		FHWA, HPMS	All HPMS samples, but this characteristic may be coded where known to exist beyond the sample limits	N/A	N/A
<b>Responsible Party for Data Collection (Effective September 2019)</b>		On-system roadways—Populated by TDA Off-system roadways—District Planning			

**Definition/Background:** This is the type of base. Bases is everything between subgrade and surface course, but use the code that best describes the layer immediately below the surface layer.

**How to Gather this Data:** Record the type of roadway base material. Construction plans contain information regarding materials used. Can also be obtained from the City or County Pavement Office. Collect in the outside lane in the inventory direction.



**Special Situations:** We recommend coding this characteristic for the entire length of the roadway. If there are several types of base under a roadway, code the type that best describes the layer immediately below the surface layer. Leave blank if no data available.

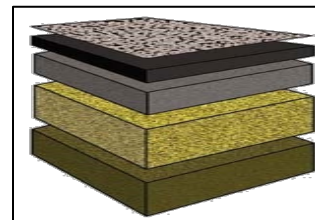
Codes	Descriptions
1	No Base
2	Aggregate
3	Asphalt or Cement Stabilized
5	Hot Mix AC (Bituminous)
6	Lean Concrete
7	Stabilized Open-graded Permeable
8	Fractured PCC

## FLEXTHIK | HPMS THICKNESS OF FLEXIBLE PAVEMENTS

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
58		FHWA, HPMS	All HPMS samples, but this characteristic may be coded where known to exist beyond the sample limits.	N/A	N/A
<b>Responsible Party for Data Collection (Effective September 2019)</b>		On-system roadways—Populated by TDA Off-system roadways—District Planning			

**Definition/Background:** The thickness in inches of flexible pavement.

**How to Gather this Data (Effective September 2019):** In office—Information can be extracted from construction plans or core sample data supplied by District Soil Lab. This also can be obtained from the City/County Pavement Office. Enter the flexible pavement thickness to the nearest inch for the roadway. If SURFTYPE codes are 02, 06, 07 or 08 then code flexible thickness. Collect in the outside lane of the inventory direction.



**Special Situations:** We recommend coding this characteristic for the entire length of the roadway. Leave blank if no data available. On mill and resurface projects the surface thickness can have an increase or no change to depth contingent on the amount of material removed and added in the process.

**Value for HPMS Thickness of Flexible Pavements:** 2 Bytes: XX—Record a number from 00 to 30 rounds to the nearest inch

## OVRYTHIK | HPMS LAST OVERLAY THICKNESS

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
56		FHWA, HPMS, Performance Management Office, MPOs	All HPMS samples, but this characteristic may be coded where known to exist beyond the sample limits.	N/A	N/A
<b>Responsible Party for Data Collection (Effective September 2019)</b>		On-system roadways—Populated by TDA Off-system roadways—District Planning			

**Definition/Background:** The thickness of the most recently applied pavement layer, if the overlay is more than 0.5 inches.

### How to Gather this Data (Effective September 2019):

- **On-system roadways**—Extract from construction plans or core sample data supplied by District Soil Lab.
- **Off-system roadways**—Obtain from a city or county pavement office.



Enter the last overlay thickness, to the nearest inch, for the outside lane in the inventory direction.

**Special Situations:** We recommend coding this characteristic for the entire length of the roadway. Leave blank if no data available.

**Value for HPMS Last Overlay Thickness:** 2 Bytes: XX—Record a number from 00 to 30 rounded to the nearest inch

## RIGDTHIK | THICKNESS OF RIGID PAVEMENT

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
47	N/A	FHWA, HPMS, Performance Management Office, MPOs	All HPMS samples, coded where known to exist beyond the sample limits.	N/A	N/A
<b>Responsible Party for Data Collection (Effective September 2019)</b>		On-system roadways—Populated by TDA Off-system roadways—District Planning			

**Definition/Background:** The thickness of rigid (Portland Cement Concrete, PCC) pavement. The thickness should reflect the last improvement on the section. When an improvement is made, consider all new or redesigned base and pavement materials when determining appropriate value.

How to Gather this Data: Effective September 2019.

Out in the field—Collect in the outside lane of the inventory direction.



- **On-system roadways**—Extract from construction plans or core sample data supplied by District Soil Lab.
- **Off-system roadways**—Obtain from a city or county pavement office.

Enter the rigid pavement thickness to the nearest inch for the roadway. If SURFACTP codes are 03, 04, 05, 08, 09, or 10 then code rigid thickness.

**Value for Thickness of Rigid Pavement:** 2 Bytes: XX—Record a number from 00 to 30 rounded to the nearest inch

**Special Situations:** We recommend coding this characteristic for the entire length of the roadway. Leave blank if no data available.



## SURFACTP | SURFACE TYPE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
49	FDE	FHWA, HPMS, Performance Management Office, MPOs	All interstate routes, all NHS routes, and all HPMS samples (this characteristic may be coded where known to exist beyond the sample limits).	N/A	N/A
<b>Responsible Party for Data Collection (Effective September 2019)</b>		On-system roadways—Populated by TDA Off-system roadways—District Planning			

**Definition/Background:** The type of pavement on the surface of the roadway.

**How to Gather this Data:** Effective September 2019

- **On-system roadways**—Extract from construction plans or core sample data supplied by District Soil Lab.
- **Off-system roadways**—Obtain from a city or county pavement office.



Enter the surface type for the roadway.

**Special Situations:** We recommend coding this characteristic for the entire length of the roadway, which may extend beyond the sample limits.

Codes	Descriptions
01	Unpaved
02	Conventional Asphalt Concrete (Bituminous)
03	Jointed Plain Concrete Pavement (JPCP)
04	Jointed Reinforced Concrete Pavement (JRCP)
05	Continuously Reinforced Concrete Pavement (CRCP)
06	AC (Bituminous) Overlay or Existing AC (Bituminous) Pavement
07	AC (Bituminous) Overlay over Existing Jointed Concrete Pavement
08	AC (Bituminous) Overlay over Existing CRCP
09	Unbonded Jointed Concrete Overlay on PCC Pavements
10	Bonded PCC Overlay on PCC Pavements
11	Other Surfaces

## YRCONST | YEAR OF LAST CONSTRUCTION

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
55	FDE	FHWA, HPMS, Performance Management Office, MPOs	All interstate routes, all NHS routes, and all HPMS samples (this characteristic may be coded where known to exist beyond the sample limits).	N/A	N/A
<b>Responsible Party for Data Collection (Effective September 2019)</b>		On-system roadways—Populated by TDA Off-system roadways—District Planning			

**Definition/Background:** This is the year the section was constructed or reconstructed. Reconstruction is the replacement of the existing pavement structure with an equivalent or increased structure. Although recycled materials may be used in the new pavement structure, reconstruction usually requires the complete removal and replacement of at least the old pavement surface; and often the base. Adding additional through lane(s) is considered new construction. Effective September 2019.



**How to Gather this Data:** Enter the 4-digit year when the last construction or reconstruction was completed. Retain the coded year until another construction or reconstruction is complete.

**Special Situations:** If a new pavement surface was placed without first removing the old pavement surface, the resulting pavement should be considered an overlay, even if the existing concrete was rubblized prior to placing the new pavement surface.

**Value for Year of Last Construction:** 4 Bytes: YYYY—Year of construction or reconstruction

## YRIMPT | YEAR OF LAST IMPROVEMENT

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
54	FDE	FHWA, HPMS, Performance Management Office, MPOs	All interstate routes, all NHS routes, and all HPMS samples (this characteristic may be coded where known to exist beyond the sample limits).	N/A	N/A
<b>Responsible Party for Data Collection (Effective September 2019)</b>		On-system roadways—Populated by TDA Off-system roadways—District Planning			

**Definition/Background:** The year of the most recent surface improvement since 1988.

**How to Gather this Data:** Record only the year in 4-digit form, e.g., 2005. Only code right side of roadway.

Information can be found at the District Office. The Districts track new and recent construction reviews for all samples of both on-system and off-system. On-system new construction notices are provided regularly to the Districts by TDA; however, off-system new construction data is the responsibility of the District. This data also may be obtained from the area's local governments or Metropolitan Planning Organizations (MPOs).



If an off-system list of ongoing and completed construction has not been obtained from the local Government, then record the date of inventory as the year of last surface improvement. Code the right outside inventory lane.

**Special Situations:** Do not record a year of last surface improvement if the last improvement was made prior to 1988 or if the last improvement was the same as the Year of Last Construction (YRCONST).

When a through lane is added for increasing capacity, this is considered construction and not simply an improvement. Therefore, remove from YRIMPT and code under YRCONST. Effective September 2019.

**Value for Year of Last Improvement:** 4 Bytes: YYYY—4-digit year of last improvement

## IRIDATE | INTERNATIONAL ROUGHNESS INDEX COLLECTION DATE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
47		FHWA, HPMS	All segments where IRI is reported—rural and urban principal arterials, HPMS samples on rural minor arterials, NHS roadways, or Strategic Intermodal System (SIS) roadways designated as SIS, emerging SIS, SIS connector, or emerging SIS connector.	N/A	N/A
<b>Responsible Party for Data Collection</b>		State Materials Offices provides IRI file to TDA, including IRI date.			

**Definition/Background:** The month and the year that International Roughness Index (IRI) data being reported was collected.

**How to Gather this Data:** Value is put into RCI by TDA.

**Value for IRI Collection Date:** 8 Bytes: MM/DD/YYYY or MMDDYYYY

Leading zeroes must be retained but slashes are optional.

**Example:** September 04, 2019, may be coded as 09/04/2019 or 09042019

2019 September



Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
26	27	28	29	30	31	01
02	03	04	05	06	07	08
09	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	01	Notes:				

## FEATURE 120

### TYPE OF ROAD

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	Yes	No	Length	No	Yes
Responsible Party for Data Collection		District Planning			

**Definition/Background:** Indicate if a segment has a route sign that designates it having a route qualifier. Route qualifiers categorize a route for a special purpose or use, such as “business route,” “loop,” or “bypass.”

### RTESGNCD | ROUTE SIGNING

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
19		FHWA, HPMS	All principal arterial system and rural minor arterial roadways On or Off the SHS, and all NHS routes/connectors.	N/A	N/A

**How to Gather this Data:** Field data collection only. Code using 1-9 corresponding to a posted qualifier. Only code what is actually posted in the field.

**Special Situations:** Where more than one code is applicable, use the lower-numbered code. If the roadway is unsigned, use code 9-None of the above.

Codes	Terms	Descriptions
1	Alternate	An alternate route generally branches from the main route and connects back with it at a distant point. An alternate route generally serves the same destinations but provides more or additional traffic services.
2	Business Route	A business route is generally within a city or urban area and provides the traveling public with a means to travel through the area, as contrasted to traveling around the congested part of the area.
3	Bypass	A bypass route generally entirely bypasses a city or a congested area, although over time, the bypass route area may become congested itself.
4	Spur	A spur route generally goes into an area and terminates without a marked exit route.
5	Loop	A loop route is a roadway that extends out from a major route to enter and (usually) circle a large city or portion of it.
6	Proposed	A proposed route sign usually portrays a future change in status, such as a route proposed for Interstate status.
7	Temporary	A temporary route is one posted to carry a route number temporarily over a route that will not be its permanent location.

Codes	Terms	Descriptions
8	Truck Route	A truck route is one that is more suited to large vehicles, due to congestion or better roadway configuration. It may or may not have legal requirements or prohibitions attached to it, or adjacent roadways.
9	None of the above	This is an RCI classification provided to cover special situations where the above coding classifications are not appropriate. It should not be used for roadway signs carrying directional plaques such as east, west, north, or south.

## EXAMPLES

		
1: Alternate	2: Business Route	3: Bypass
		
4: Spur	5: Loop	6: Proposed
		
7: Temporary	8: Truck Route	9: None of the above



## TYPE ROAD | TYPE OF ROAD

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
3		FHWA, HPMS	All functionally classified roadways On or Off the SHS and Active Exclusive roadways.	N/A	N/A






**Definition/Background:** Denotes if a roadway is one-way, divided, or not divided.

**How to Gather this Data:** Review the design and function of the roadway from beginning to end; record the milepoints where there are changes in value. A one-way roadway will be noted by signage and striping and will serve traffic in one direction only. A divided highway will always have a median. This median may be paint on the roadway or a physical barrier. The beginning and ending of the median will usually have a physical or painted gore. A divided highway requires a corresponding median type listed in Feature 215 Highway Median and the non-composite characteristics will be inventoried separately for the left and right sides of the roadway.

**Special Situations:** In RCI, a roadway with a painted median is considered divided; but in HPMS it is considered undivided. For one-way roadway segments, Features 111 and 113 must break at the same points as the one-way points.

Codes	Descriptions
0	Not divided
2	Divided (painted or physical)
4	One-way
6	Reversible

## EXAMPLES

		
0: Not Divided	2: Divided (painted or physical)	4: One Way
		
6: Reversible (Selmon Expy not elevated)	6: Reversible (Selmon Expy elevated)	

## DDIXOVR | DDI CROSSOVER

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Planning, Traffic Ops, Safety, TDA, Design	All functionally classified roadways On or Off the SHS.	N/A	N/A

**Definition/Background:** Indicates the travel length of the non-limited access facility between crossover intersections at a diverging diamond interchange (DDI).

Within the crossover area, non-composite characteristics will be inventoried for the left and right sides of the roadway as they appear with respect to the inventory direction.

**How to Gather:** Code from BMP to EMP in the inventory direction on the non-limited access roadway. BMP and EMP shall be coded at the center of each intersection where the lanes of opposing directions cross each other. Code the name of the interchange in the value field. If the interchange does not have a name, input the names of the intersecting roadways at the interchange.

### EXAMPLES



In this example, the inventory direction is from west to east. The BMP for DDIXOVR is coded at the center of the intersection on Fiske Blvd on the west side of the crossover area. The EMP for DDIXOVR is coded at the center of the intersection on the east side of the crossover area.



## FEATURE 121

### FUNCTIONAL CLASSIFICATION

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	Yes	No	Length	No	Yes
Responsible Party for Data Collection		TDA and District Planning with MPO and/or local Government coordination and FHWA approval			

**Definition/Background:** The two-digit Functional Classification (FUNCLASS) code is used in federal reports. FUNCLASS is the assignment of roadways into systems according to the character of service they provide in relation to the total roadway network. It is independent of ownership since the role the facility plays in comparison to other facilities and connectivity is the primary factor in the process of determining the road's function. Florida uses the Federal Functional Classification System, which is common to all states. The original Florida Functional Classification System was eliminated in 1995 by the repeal of *Chapter 335.04, F.S.* The SHS is determined by mutual agreement and not by functional classification.

Roadways on the National Highway System are federal aid funded. Federal funding eligibility for all other roadways is determined by FUNCLASS. FEMA provides emergency funds for roadways that are not on the Federal-Aid Highway System.

### FUNCLASS | FUNCTIONAL CLASSIFICATION

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
1	19	FHWA, HPMS, FDOT, MPOs	All functionally classified roadways On or Off the SHS and Active Exclusive.	N/A	N/A

**Cross-Reference/Tolerance:** Match Feature 251 and the milepoints associated with the facility location, and then urban/rural nature of the classification must match Feature 124.

**How to Gather this Data:** Refer to the most current copy of the FHWA's Highway Functional Classification, Concepts, Criteria and Procedures or the FDOT's Urban Boundary and Functional Classification of Roadways Procedure and Handbook. FUNCLASS should have a logical place to begin and end like an intersection, a particular traffic generator facility, or at an urban boundary.

**Special Situations:** When there is a realignment or deletion, make sure the FUNCLASS also is changed accordingly. FUNCLASS also may be affected by a change in the usage or configuration of the roadway. This process is covered in the FHWA Urban Boundary and Federal Functional Classification Procedure.

Rural Codes	Urban Codes	Functional Classification Descriptions
01	11	Principal Arterial—Interstate
02	12	Principal Arterial—Freeways & Expressways
04	14	Principal Arterial—Other
06	16	Minor Arterial
07	17	Major Collector
08	18	Minor Collector
09	19	Local

## PROFUNCL | PROPOSED FUNCTIONAL CLASSIFICATION

See Feature 123 | Proposed Designations.

## FEATURE 122

### FACILITY CLASSIFICATION

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	Yes	No	Length	No	Yes
Responsible Party for Data Collection		District Planning			

**Definition/Background:** Records the limits of the owning authority, access control type, and if there is a user toll and the associated toll road name.

### RDACCESS | ACCESS CONTROL TYPE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
5		FHWA, HPMS, Planning	All roadways functionally classified On or Off the SHS, frontage roads, and Managed Lanes.	N/A	N/A

**Definition/Background:** Denotes whether or not at-grade streets or driveways are permitted to intersect the roadway.

**How to Gather this Data:** Record from the beginning of the roadway ID to the end. If the access control type changes, code the milepoint where the change occurs using a physical point or an intersection.

If Feature 252 Interchanges is coded for the roadway, then access control code 1—Full Control should be coded for the limits of the interchange(s). Reference Feature 146 Access Management Classification for verification of roadway access.

*Full Control*—This type has grade-separated interchanges and may have ramps and acceleration lanes. There will be no at-grade intersections and no access to driveways.

*Partial Control (rare)*—Most intersections are grade-separated but there are some at-grade intersections. There will be a combination of ramps, grade-separated interchanges, at-grade intersections, and limited driveway access. Access control type Partial Control is not a combination of Full Control and No Access Control.

*No Access Control*—Include all roadway IDs that do not meet the criteria above.

Codes	Descriptions
1	Full Control (interstate, turnpike, or similar roadway with all access via grade-separated interchanges)
2	Partial Control (some grade-separated interchanges and some direct access roads or driveways)—rare
3	No Access Control (not grade-separated interchanges)

## EXAMPLES



1: Full Control



2: Partial Control



3: No Access Control

## TOLLROAD | TOLL ROAD FLAG

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
16		FHWA, HPMS, Planning	All roadways functionally classified On or Off the SHS and Managed Lanes.	N/A	N/A

**Definition/Background:** Denotes if all or part of the roadway is toll.

**How to Gather this Data:** Record the beginning and ending milepoint of the tolled part of the roadway. Any segment of roadway that requires a toll payment to drive on is considered toll road.

In office—Determine the toll boundaries at the office before performing a field inventory. If you have questions, contact the Toll Facility Office in Tallahassee.



**Special Situations:** Toll roads will not always have their tollbooths within the roadway segment being inventoried. Some will be on ramps and others will be on special lanes, e.g., open road tolling lanes (ORT) or SunPass.

Codes	Descriptions
0	Free
1	Toll

*Toll Road Names and Owners*

Roadways that are limited access and tolled require the Owning Authority to be identified and the Name of the Toll Facility.

**OWNAUTH | OWNING AUTHORITY**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Work Program	All expressways, mainlines, and active exclusives managed by an owning authority, including Managed Lanes.	N/A	N/A

**Definition/Background:** Denotes all or part of the roadway that is maintained by an owning authority, which is a toll expressway authority that was established according to **Chapter 348, F.S.** as part of the Florida Expressway Authority Act with the goal of the authority being to improve the movement of people and goods throughout the region that they manage. Expressway authorities were created as a way to allow the financing of interstate expansion with toll proceeds. Authorities develop and implement construction and financing plans for state and city roadways, bridges, and interchanges in conjunction with the city Government and the FDOT. Expressway authorities usually build toll facilities and become the owning authority that manages and operates the facility. Owning authorities own and operate their facilities.

For more information about Florida toll system and the Central Florida Expressway Authority (CFX) please go to the following websites:

- <https://www.cfxway.com/>.
- <https://www.cfxway.com/agency-information/agency-overview/about-cfx/>.

**How to Gather this Data:** Identify the owning authority (see codes), determine the exact limits, and record the beginning and ending milepoints. Office of Work Program and Budget works with District staff in identifying limits maintained by an owning authority. The Multimodal Data System Coordinator in TDA will code and enter this information into RCI.

Status	Codes	Owning Authority
Existing	N/A	FDOT—Florida Department of Transportation
Existing	N/A	FDOT (Turnpike)
Existing	N/A	Pensacola County
Existing	CFX	Central Florida Expressway Authority (Replaces OOCEA—Effective December 2017)
Existing	JTA	Jacksonville Transportation Authority
Existing	LYNX	Central Florida Regional Transportation Authority
Existing	MBBA	Mid-Bay Bridge Authority
Existing	MDX	Miami-Dade Expressway

Status	Codes	Owning Authority
Existing	NEFRTC	Northeast Florida Regional Transportation Commission
Existing	PTA	Private Toll Authority (Active Off the SHS such as Orchard Pond Parkway) (Effective December 2017)
Existing	SFRTA	South Florida Regional Transportation Authority
Existing	SRBBA	Santa Rosa Bay Bridge Authority
Existing	TBARTA	Tampa Bay Area Regional Transit Authority
Existing	THCEA	Tampa-Hillsborough Expressway Authority
Planned	NWFTCA	Northwest Florida Transportation Corridor Authority
Obsolete	OOCEA	Orlando Orange County Expressway Authority (Obsolete—Effective December 2017)
Obsolete	OCX	Osceola County Expressway Authority
Obsolete	SCEA	Seminole County Expressway Authority (Obsolete—Effective December 2017)
Obsolete	SWFEA	Southwest Florida Expressway Authority (Obsolete—Effective December 2017)

### TOLLNAME | NAME OF TOLL FACILITY (FORMERLY IN FEATURE 119-HPMS UNIVERSE)

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
15	N/A	FHWA, HPMS	All functionally classified roadways.	N/A	N/A

**Definition/Background:** The name of a toll facility, such as a bridge or expressway.

**How to Gather this Data:** Match the name of the facility to the code provided by FHWA. See below. Code for the entire toll facility regardless of the type of tolls charged/not charged—the entire facility has a Toll Name.

**Special Situations:** Code for the same milepoints as TOLLROAD. Use code 000 TOLL ID UNASSIGNED for new toll facilities that have not been assigned a toll identification number by the FHWA.



Code	Toll Facility Name	Ownership
000	TOLL ID UNASSIGNED	N/A
044	ALLIGATOR ALLEY (I-75)	FDOT
047	BEACH LINE EAST (SR-528)	FDOT (Turnpike)
048	BEACH LINE EXPRESSWAY (SR-528)	CFX
049	BEACH LINE WEST (SR-528)	FDOT (Turnpike)
036	BROAD CAUSEWAY	Bay Harbor Islands (City)
041	CAPE CORAL BRIDGE	Lee County
031	CARD SOUND BRIDGE	Monroe County
058	CENTRAL FL GREENWAY (SR-417)	CFX
039	CLEARWATER PASS SAND KEY BRIDGE	
045	EAST-WEST (DOLPHIN) EXPRESSWAY	MDX
390	FIRST COAST EXPY (SR-23)	FDOT (Turnpike)
046	FLORIDA TURNPIKE—MAINLINE (SR-91)	FDOT (Turnpike)
043	GARCON POINT BRIDGE	Santa Rosa Bay Bridge Authority
318	GASPARILLA BRIDGE	Gasparilla Island Bridge Authority
395	GATEWAY EXPRESSWAY	FDOT
301	GOLDENROD ROAD	CFX Orlando
062	GRATIGNY PARKWAY	MDX
300	HAMMOCK DUNES PARKWAY	Dunes Development District
053	HOLLAND EAST-WEST EXPRESSWAY (SR-408)	CFX
050	HOMESTEAD EXT OF FL TPK—HEFT (SR-821)	FDOT (Turnpike)
388	I-275 (MANAGED LANES)	FDOT
389	I-295 EXPRESS	FDOT
386	I-4 EXPRESS	FDOT
339	I-4/SELMON CONNECTOR	FDOT (Turnpike)
340	I-595 EXPRESS	FDOT
387	I-75 EXPRESS	FDOT
302	I-95 HOT LANES (NORTH/SOUTH EXPY)	FDOT
303	JOHN LAND-APOPKA EXPY (SR-414)	CFX
052	LEE ROY SELMON CROSSTOWN EXPY	Tampa Hillsborough Exp Authority
052	LEE ROY SELMON CROSSTOWN EXPY Ext	FDOT
055	MIAMI AIRPORT EXPRESSWAY	MDX
032	MID-BAY BRIDGE/SPENCE PARKWAY	Mid-Bay Bridge Authority
042	MIDPOINT MEMORIAL BRIDGE	Lee County
362	ORCHARD POND PARKWAY	Orchard Pond Greenway, LLC

Code	Toll Facility Name	Ownership
394	OSCEOLA BELTWAY SR-538	FDOT
060	OSCEOLA PARKWAY	CFX/Osceola Exp Authority
393	PALMETTO EXPRESS (SR-826)	FDOT
034	PENSACOLA BEACH/BOB SYKES BRIDGE	Escambia County
033	PINELLAS BAYWAY SYSTEM BRIDGE	FDOT
363	POINCIANA PARKWAY	CFX
064	POLK PARKWAY (SR-570)	FDOT (Turnpike)
037	RICKENBACKER CAUSEWAY	Miami-Dade County
040	SANIBEL CAUSEWAY	Lee County
054	SAWGRASS EXPRESSWAY (SR-869)	FDOT (Turnpike)
057	SEMINOLE EXPRESSWAY (SR-417)	FDOT (Turnpike)
315	SNAPPER CREEK EXPRESSWAY	MDX
051	SOUTH DADE (DON SHULA) EXPY	Miami-Dade MDX
061	SOUTHERN CONNECTOR EXTENSION (SR-417)	FDOT (Turnpike)
063	SUNCOAST PARKWAY (SR-589)	FDOT (Turnpike)
030	SUNSHINE SKYWAY BRIDGE (I-275)	FDOT
065	SW 10TH ST SAWGRASS EXTENSION	
035	TREASURE ISLAND CAUSEWAY	Treasure Island (City)
314	VENETIAN CAUSEWAY	Miami-Dade County
056	VETERANS EXPRESSWAY (SR-589)	FDOT (Turnpike)
361	WEKIVA PARKWAY (SR-429)	FDOT/CFX
361	WEKIVA PARKWAY (SR-453) SECTION 2B/2C	CFX
391	WESTERN BELTWAY (SR-451)	CFX
059	WESTERN BELTWAY PART C (SR-429)	FDOT (Turnpike)



## FEATURE 123

### PROPOSED DESIGNATIONS

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	Yes	No	Length	No	Yes
Responsible Party for Data Collection		District Planning with MPO and/or local Government coordination and FHWA approval			

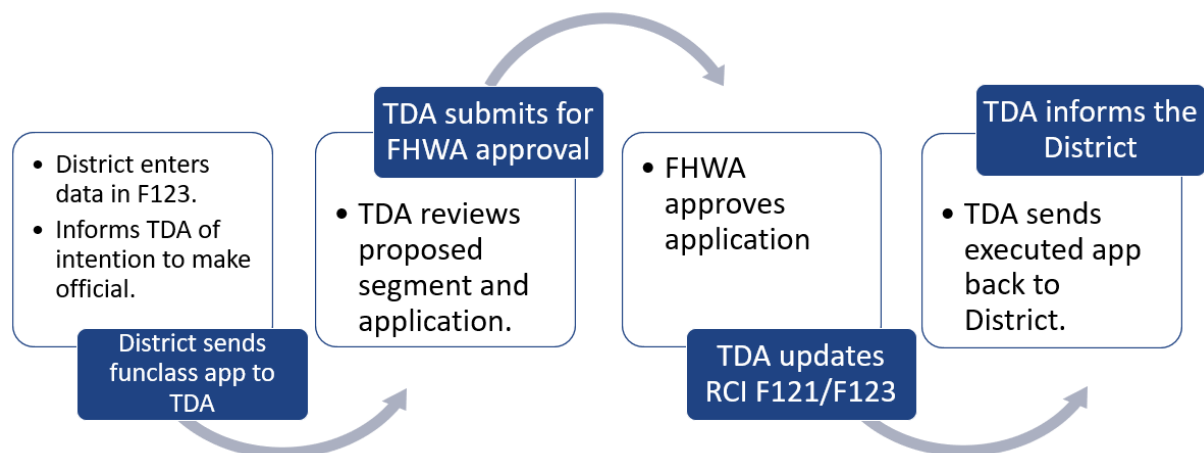
**Definition/Background:** Proposed Designations that are awaiting approval. Once approved, the proposed designation is updated in the official feature and characteristic, and the proposed information is removed from this feature.

### PROFUNCL | PROPOSED FUNCTIONAL CLASSIFICATION (FORMERLY IN FEATURE 121-FUNCTIONAL CLASSIFICATION)

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
1	19	FHWA, HPMS, FDOT, MPOs	All functionally classified roadways above rural/urban local, that are On or Off the SHS and Active Exclusive.	N/A	N/A

Proposed Functional Classification (PROFUNCL) is used as a way to track interim changes to functional classifications on roadways that are intended to be added or changed, but *that are not yet approved by FHWA*. There are scenarios where the local Government or field personnel would like to re-assess the functional classification of certain sections. This proposed functionality allows the districts to map the proposed changes in coordination with roadway ID sectioning and the LRS to make sure there are no gaps, to ensure connectivity with the system, and to see if it meets the criteria. Since this characteristic is not required by procedure or an official signature, it is a great place for the districts to propose these requests, to then submit the official paperwork to TDA to update the “official” functional classification with FHWA’s approval.

**How to Gather this Data:** Refer to instructions for coding Feature 121—Functional Classification.



**Special Situations:** Every ten years, each roadway's functional classification is re-examined. Proposed changes under this ten-year check should be entered into PROFUNCL only. Once approved by FHWA, the data from PROFUNCL will be published in the official FUNCLASS in Feature 121. This process is covered in FDOT's Urban Boundary and Functional Classification of Roadways Handbook:

<https://www.fdot.gov/statistics/hwysys/default.shtm>.

Rural Codes	Urban Codes	Proposed Functional Classification Descriptions
01	11	Principal Arterial—Interstate
02	12	Principal Arterial—Freeways & Expressways
04	14	Principal Arterial—Other
06	16	Minor Arterial
07	17	Major Collector
08	18	Minor Collector
09	19	Local

## FEATURE 124

### URBAN CLASSIFICATION

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	Yes	No	Length	No	Yes
Responsible Party for Data Collection		District Planning			

**Definition/Background:** Feature 124 identifies the Rural/Urban Boundaries, Incorporated City Boundaries, Metropolitan Planning Area (MPO) Boundaries.

### HWYLOCAL | HIGHWAY LOCATION CODE

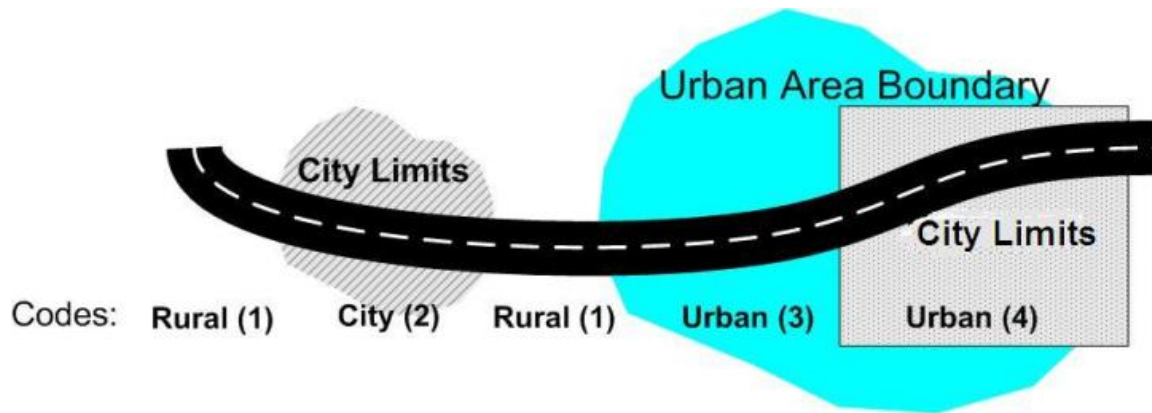
HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
2	N/A	FHWA, HPMS, Outdoor Advertising, Planning	All roadways functionally classified On or Off the SHS and Managed Lanes.	N/A	N/A

**Definition/Background:** Denotes if a segment is within urban limits. Characteristics in this feature describe whether the roadway ID is located in a rural or urban area and whether or not it is in a municipality.

**How to Gather this Data:** While at the office, for codes 3 and 4, “Urban,” identify the city limits and urban areas. Urban limits must be calculated using the latest approved urban boundary maps. TDA GIS Section can provide that information.

Codes	Descriptions
1	Outside both city and urban limits (Rural)
2	Inside the city limits, but not inside the urban limits (Rural)
3	Inside the urban limits, but not inside the city limits (Urban)
4	Inside both city and urban limits (Urban)

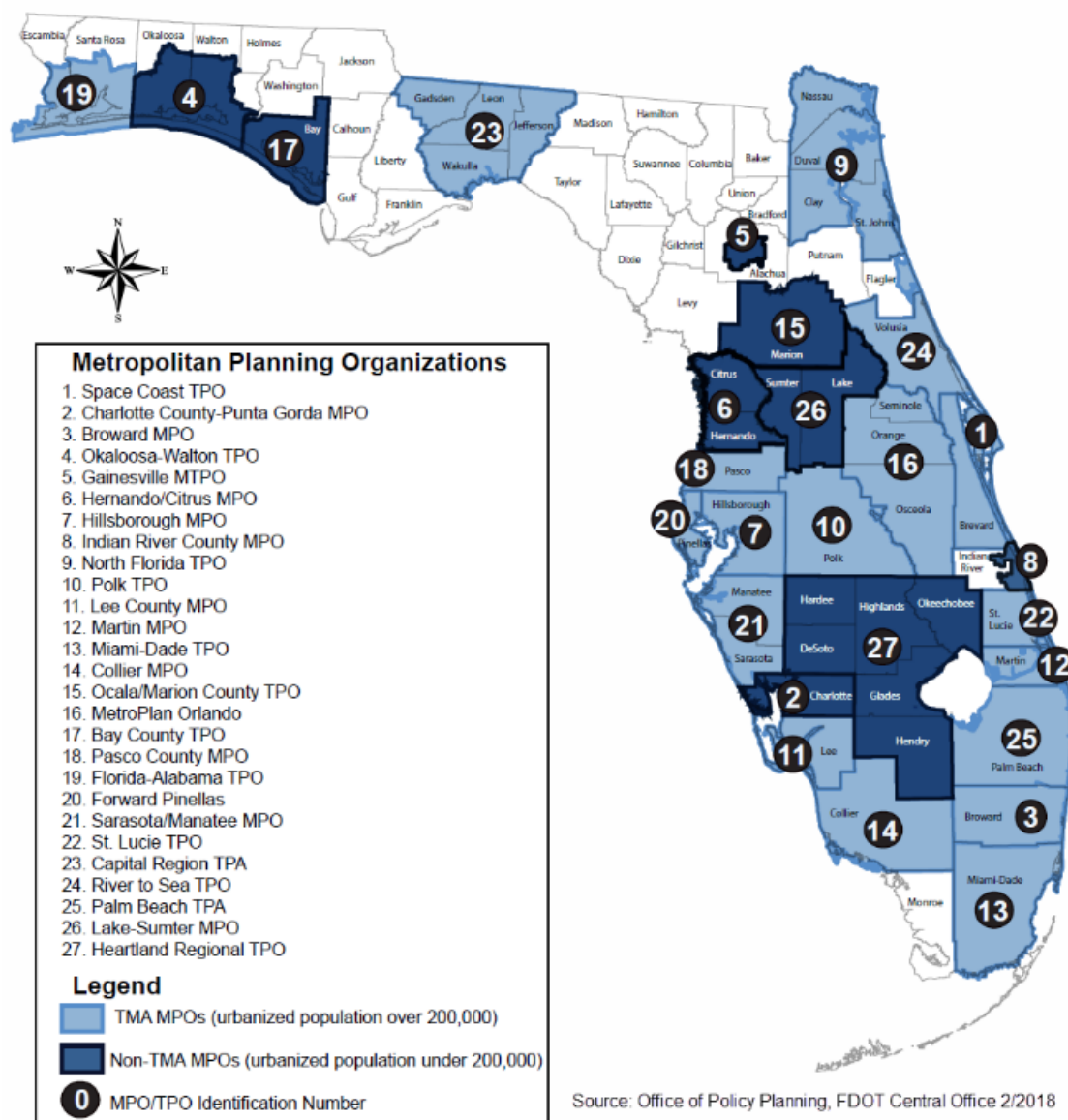
## EXAMPLE



## MPOAREA | METROPOLITAN PLANNING ORGANIZATION (MPO) AREA

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		FHWA, HPMS, Performance Management Office, Planning, Maintenance, MPOs	All roadways functionally classified roads On or Off the SHS, including Active Exclusive Roadways.	N/A	N/A

**Definition/Background:** MPOs are federally mandated transportation planning organizations (TPO) comprised of representatives from local governments and transportation authorities. The MPO's role is to develop and maintain the required transportation plans for a metropolitan area boundary to ensure that federal funds support local priorities. For more information on MPOs, see the MPO Program Management Handbook.



<http://www.fdot.gov/planning/policy/metrosupport/FDOT%202017%20MPO%20Handbook.pdf>—Effective December 2017.

**How to Gather this Data:** Record the MPO area number assigned to the MPO area in the table provided herein.

Any changes to the location along the roadway should be confirmed by a comparison of the MPO area the best recommended method is to use ArcMap.

Using iView or ArcGIS, utilize the MPO planning boundary shapefile and most up to date linear referencing system shapefile, code the estimated GIS mileage to obtain the BMP and EMP of inventoried roadways that fall within MPO boundary.

**Special Situations:** MPO Areas with partial coverage are indicated by an asterisk (\*). Code 00-None is coded only for counties having partial coverage by an MPO. For counties without an MPO, no code is required.

Code	MPO Area Name	Counties for MPO Area
00	None (Outside of MPO Area Boundary and Within County of an MPO Area)	Alachua, Escambia, Flagler, Indian River, Okaloosa, Santa Rosa, and Walton
01	Space Coast TPO	Brevard
02	Charlotte County-Punta Gorda MPO	Charlotte and DeSoto
03	Broward MPO	Broward
*04	Okaloosa-Walton TPO	*Okaloosa and *Walton
*05	Gainesville MTPO	*Alachua
06	Hernando/Citrus MPO	Citrus and Hernando
07	Hillsborough MPO	Hillsborough
*08	Indian River County MPO	*Indian River
09	North Florida TPO	Clay, Duval, Nassau, and St. Johns
10	Polk TPO	Polk
11	Lee County MPO	Lee
12	Martin MPO	Martin
13	Miami-Dade TPO	Miami-Dade
14	Collier MPO	Collier
15	Ocala/Marion County TPO	Marion
16	MetroPlan Orlando	Orange, Osceola, and Seminole
17	Bay County TPO	Bay
18	Pasco County MPO	Pasco
*19	Florida-Alabama TPO	*Escambia and *Santa Rosa
20	Forward Pinellas	Pinellas
21	Sarasota/Manatee MPO	Manatee and Sarasota
22	St. Lucie TPO	St. Lucie
23	Capital Region TPA	Gadsden, Jefferson, Leon, and Wakulla
*24	River to Sea TPO	*Flagler and Volusia
25	Palm Beach TPA	Palm Beach
26	Lake-Sumter MPO	Lake and Sumter
27	Heartland Regional TPO	DeSoto, Glades, Hardee, Hendry, Highlands, and Okeechobee
N/A	Entire Counties outside of MPO Areas	Baker, Bradford, Calhoun, Columbia, Dixie, Franklin, Gilchrist, Gulf, Hamilton, Holmes, Jackson, Lafayette, Levy, Liberty, Madison, Monroe, Putnam, Suwannee, Taylor, Union, and Washington

## PLACECD | CENSUS PLACE (CITY) CODE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		FHWA, HPMS	All functionally classified roadways inside incorporated cities, ramps with ramp functional classification, and Managed Lanes.	N/A	N/A

**Definition/Background:** Cities and urban areas in the state are assigned a 4-digit identification number.

**Important When Gathering:** If there appears to be potential for changing the city limits, request annexation notices which describe the new city limits.

**How to Gather this Data:** City limits can be determined by performing one or more of the following checks:



1. Visually identify the city limit signs posted in the field.
2. Review official city maps.

**Special Situations:** City limits may change at any time. Note the data source used for the inventory.

If a roadway ID is bisected longitudinally by two municipalities, then record the FDOT place code, in the table provided herein, of the larger municipality. If both municipalities are of similar size, then record the place code of the municipality in the inventory direction.

Codes	Places
0005	Alachua
0010	Alford
0015	Altamonte Springs
0020	Altha
0025	Anna Maria
0030	Apalachicola
0035	Apopka
0040	Arcadia
0045	Archer
0050	Astatula
0055	Atlantic Beach
0060	Atlantis

Codes	Places
0065	Auburndale
0070	Aventura
0067	Avon Park
0080	Bal Harbour Village
0075	Baldwin
0085	Bartow
0087	Bascom
0090	Bay Harbor Islands
0092	Bay Lake
0115	Belleair
0120	Belleair Beach

Codes	Places
0122	Belleair Bluffs
0125	Belleair Shore
0130	Belle Glade
0140	Belle Isle
0145	Bellevue
0150	Bell
0160	Beverly Beach
0165	Biscayne Park
0175	Blountstown
0180	Boca Raton
0185	Bonifay
0187	Bonita Springs

Codes	Places
0195	Bowling Green
0200	Boynton Beach
0210	Bradenton Beach
0215	Bradenton
0675	Fort White
0678	Freeport
0680	Frostproof
0685	Fruitland Park
0695	Gainesville
0740	Glen Ridge
0742	Glen St Mary
0744	Golden Beach
0751	Golf
0755	Graceville
0760	Grand Ridge
0763	Grant-Valkaria
0770	Green Cove Springs
0765	Greenacres
0775	Greensboro
0780	Greenville
0783	Greenwood
0785	Gretna
0790	Groveland
0792	Gulf Breeze
0795	Gulfport
0800	Gulf Stream
0810	Haines City
0815	Hallandale Beach
0820	Hampton
0835	Havana
0840	Haverhill
0845	Hawthorn
0860	Hialeah

Codes	Places
0865	Hialeah Gardens
0870	Highland Beach
0880	Highland Park
0885	High Springs
0890	Hillcrest Heights
0895	Hilliard
0900	Hillsboro Beach
0910	Holly Hill
0915	Hollywood
0925	Holmes Beach
1325	Mascotte
1330	Mayo
1265	McIntosh
1335	Medley
1345	Melbourne Beach
1350	Melbourne
1355	Melbourne Village
1367	Mexico Beach
1369	Miami Beach
1370	Miami
1376	Miami Gardens
1378	Miami Lakes
1380	Miami Shores
1385	Miami Springs
1390	Micanopy
1395	Midway
1400	Milton
1410	Minneola
1420	Miramar
1425	Monticello
1430	Montverde
1435	Moore Haven
1440	Mount Dora

Codes	Places
1445	Mulberry
1455	Naples
1467	Neptune Beach
1470	Newberry
1475	New Port Richey
1480	New Smyrna Beach
1485	Niceville
1488	Noma
1490	North Bay Village
1494	North Lauderdale
1500	North Miami Beach
1502	North Miami
1510	North Palm Beach
1520	North Port
1525	North Redington Beach
1940	Sea Ranch Lakes
1945	Sebastian
1950	Sebring
1955	Seminole
1960	Sewall's Point
1965	Shalimar
1970	Sneads
1980	Sopchoppy
1990	South Bay
1995	South Daytona
2005	South Miami
2010	South Palm Beach
2015	South Pasadena
2023	Southwest Ranches
2025	Springfield
2030	Starke
2035	Stuart



Codes	Places
2043	Sunny Isles Beach
2045	Sun 'N Lake
2047	Sunrise
2050	Surfside
2055	Sweetwater
2070	Tallahassee
2072	Tamarac
0230	Branford
0237	Briny Breezes
0240	Bristol
0245	Bronson
0250	Brooker
0255	Brooksville
0265	Bunnell
0270	Bushnell
0275	Callahan
0277	Callaway
0280	Campbellton
0292	Cape Canaveral
0293	Cape Coral
0300	Carrabelle
0305	Caryville
0310	Casselberry
0325	Cedar Key
0330	Center Hill
0335	Century
0345	Chattahoochee
0350	Chiefland
0355	Chipley
0370	Cinco Bayou
0375	Clearwater
0380	Clermont
0385	Clewiston
0390	Cloud Lake

Codes	Places
0393	Cocoa Beach
0395	Cocoa
0407	Coconut Creek
0410	Coleman
0420	Cooper City
0425	Coral Gables
0427	Coral Springs
0430	Cottondale
0435	Crescent City
0440	Crestview
0445	Cross City
0450	Crystal River
0930	Homestead
0932	Horseshoe Beach
0935	Howey-In-The-Hills
0940	Hypoluxo
0950	Indialantic
0955	Indian Creek, Village of
0957	Indian Harbour Beach
0960	Indian River Shores
0965	Indian Rocks Beach
0970	Indian Shores
0975	Indian Town
0980	Inglis
0985	Interlachen
0990	Inverness
0995	Islamorada
1000	Jacksonville
1001	Jacksonville Beach
1004	Jacob City

Codes	Places
1010	Jasper
1015	Jay
1020	Jennings
1030	Juno Beach
1040	Jupiter Inlet Colony
1045	Jupiter Island
1046	Jupiter
1050	Kenneth City
1058	Key Biscayne, Village of
1060	Key Colony Beach
1065	Keystone Heights
1070	Key West
1075	Kissimmee
1080	Labelle
1090	Lacrosse
1095	Lady Lake
1100	Lake Alfred
1101	Lake Buena Vista
1105	Lake Butler
1110	Lake City
1115	Lake Clarke Shores
1530	Oak Hill
1540	Oakland Park
1541	Oakland
1545	Ocala
1548	Ocean Breeze Park
1550	Ocean Ridge
1560	Ocoee
1565	Okeechobee
1570	Oldsmar
1585	Opa-Locka

Codes	Places
1590	Orange City
1595	Orange Park
1597	Orchid
1600	Orlando
1605	Ormond Beach
1612	Otter Creek
1615	Oviedo
1625	Pahokee
1630	Palatka
1640	Palm Bay
1650	Palm Beach Gardens
1655	Palm Beach Shores
1656	Palm Beach
1658	Palm Coast
1660	Palmetto
1661	Palmetto Bay, Village of
1667	Palm Shores
1670	Palm Springs
1674	Panama City Beach
1675	Panama City
1685	Parker
1686	Parkland
1690	Paxton
1695	Pembroke Park
1700	Pembroke Pines
1703	Penney Farms
1715	Pensacola
1725	Perry
2075	Tampa
2080	Tarpon Springs
2085	Tavares
2090	Temple Terrace

Codes	Places
2095	Tequesta
2105	Titusville
2115	Treasure Island
2120	Trenton
2125	Umatilla
2135	Valparaiso
2140	Venice
2145	Vernon
2150	Vero Beach
2155	Virginia Gardens
2165	Waldo
2185	Wauchula
2187	Wausau
2195	Webster
2196	Weeki Wachee
2197	Wellington
2200	Welaka
2206	West Melbourne
2210	West Miami
2215	West Palm Beach
0454	Cutler Bay
0465	Dade City
0470	Dania Beach
0475	Davenport
0477	Davie
0485	Daytona Beach
0486	Daytona Beach Shores
0490	DeBary
0495	Deerfield Beach
0500	DeFuniak Springs
0505	Deland
0510	Delray Beach
0512	Deltona

Codes	Places
0517	Destin
0522	Doral
0525	Dundee
0530	Dunedin
0535	Dunnellon
0540	Eagle Lake
0555	Eatonville
0562	Ebro
0565	Edgewater
0571	Edgewood
0585	El Portal
0595	Estero, Villages of
0600	Esto
0605	Eustis
0610	Everglades City
0613	Fanning Springs
0615	Fellsmere
0620	Fernandina Beach
0630	Flagler Beach
0640	Florida City
0645	Fort Lauderdale
0650	Fort Meade
0654	Fort Myers Beach
0655	Fort Myers
0665	Fort Pierce
0670	Fort Walton Beach
1125	Lake Hamilton
1130	Lake Helen
1140	Lakeland
1144	Lake Mary
1145	Lake Park
1150	Lake Placid
1160	Lake Wales

Codes	Places
1165	Lake Worth
1170	Lantana
1175	Largo
1180	Lauderdale by the Sea
1183	Lauderdale Lakes
1185	Lauderhill
1195	Laurel Hill
1200	Lawtey
1203	Layton
1205	Lazy Lake Village
1210	Lee
1215	Leesburg
1225	Lighthouse Point
1230	Live Oak
1245	Longboat Key
1250	Longwood
1253	Loxahatchee Groves
1255	Lynn Haven
1260	Macclesney
1270	Madeira Beach
1275	Madison
1280	Maitland
1283	Malabar
1285	Malone
1290	Manalapan
1295	Mangonia Park
1298	Marathon
1299	Marco Island
1300	Margate

Codes	Places
1305	Marianna
1315	Marineland
1320	Mary Esther
1735	Pierson
1745	Pinecrest
1750	Pinellas Park
1755	Plantation
1760	Plant City
1770	Polk City
1775	Pomona Park
1780	Pompano Beach
1783	Ponce De Leon
1784	Ponce Inlet
1795	Port Orange
1800	Port Richey
1805	Port St Joe
1807	Port St Lucie
1820	Punta Gorda
1825	Quincy
1827	Raiford
1830	Reddick
1835	Redington Beach
1840	Redington Shores
1842	Reedy Creek
1855	Riviera Beach
1860	Rockledge
1870	Royal Palm Beach
1880	Safety Harbor
1885	Saint Augustine
1884	Saint Augustine Beach

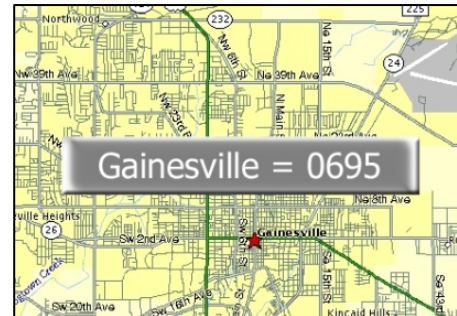
Codes	Places
1890	Saint Cloud
1895	Saint Leo
1897	Saint Lucie, Village of
1898	Saint Marks
1899	Saint Petersburg Beach
1900	Saint Petersburg
1915	San Antonio
1920	Sanford
1922	Sanibel
1930	Sarasota
1935	Satellite Beach
2218	West Park
2229	Weston
2232	Westville
2235	Wewahatchka
2245	White Springs
2250	Wildwood
2255	Williston
2260	Wilton Manors
2270	Windermere
2280	Winter Garden
2285	Winter Haven
2290	Winter Park
2291	Winter Springs
2293	Worthington Springs
2295	Yankeetown
2300	Zephyrhills
2305	Zolfo Springs

## URBAREA | URBAN AREA NUMBER

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
2		FHWA, HPMS, Work Program	All functionally classified roadways On or Off the SHS, ramps with ramp functional classification, and Managed Lanes.	N/A	N/A

**Definition/Background:** An urban area is defined as a geographical region comprising, as a minimum, the United States Bureau of Census boundary of an urban place with a population of 5,000 or more persons, expanded to include adjacent areas as provided for by FHWA regulations, *Sub-section 334.003(27), F.S.*

**How to Gather this Data:** Record the urban area number assigned to the urban area, in the table provided herein. This code normally changes only once every 10 years, following a re-evaluation of the FHWA urban boundaries. Any change to its value should be confirmed by a comparison of the roadway location to the urban area boundary; the best way to do this is with ArcMap, but iView also may be helpful.



### SMALL URBAN AREA (POPULATION 5,000–49,999)—URBSIZE = 2

Codes	Names
0040	Arcadia-SE Arcadia
0130	Belle Glade
0164	Big Pine Key
0345	Chattahoochee
0385	Clewiston
9902	Crawfordville
0440	Crestview
0500	DeFuniak Springs
0615	Fellsmere
0620	Fernandina Beach
0650	Fort Meade
9904	Four Corners
0680	Frostproof
0945	Immokalee
0975	Indian Town
0985	Interlachen

Codes	Names
1010	Jasper
9903	Jupiter Farms
1063	Key Largo
1070	Key West
1065	Keystone Heights
1080	Labelle-Port LaBelle
1105	Lake Butler
1110	Lake City
9950	Lake Placid
1230	Live Oak
1260	Macclenny
1298	Marathon
1305	Marianna
9900	Marion Oaks
9905	Nassau Village-Ratliff
1565	Okeechobee-Taylor Creek
9906	Orangetree
1625	Pahokee
1630	Palatka
9907	Panama City NE
1725	Perry
9910	Poinciana
9911	Poinciana SW
1825	Quincy
9918	Rainbow Lakes Estates
2030	Starke
9923	Sugarmill Woods
2185	Wauchula
2292	Woodville
9940	World Golf Village
2296	Yulee

### SMALL URBANIZED AREA (POPULATION 50,000–199,999)—URBSIZE = 3

Codes	Urban Names
0512	Deltona
0670	Fort Walton Beach-Navarre-Wright
0695	Gainesville
0933	Homosassa Springs-Beverly Hills-Citrus Springs
1095	Lady Lake-The Villages
1215	Leesburg-Eustis-Tavares
1520	North Port-Port Charlotte
1545	Ocala
1675	Panama City
1885	St. Augustine
1945	Sebastian-Vero Beach South-Florida Ridge
1950	Sebring-Avon Park
2029	Spring Hill
2105	Titusville
2300	Zephyrhills

### LARGE URBANIZED AREAS (POPULATION 200,000–499,999)—URBSIZE = 4

Codes	Urban Names
0187	Bonita Springs
1075	Kissimmee
1136	Lakeland
1640	Palm Bay-Melbourne
1658	Palm Coast-Daytona Beach-Port Orange
1715	Pensacola, (FL–AL)
1807	Port Saint Lucie
2070	Tallahassee
2285	Winter Haven

**METROPOLITAN AREAS (POPULATION 500,000 OR MORE)—URBSIZE = 5**

Codes	Urban Names
0293	Cape Coral
1000	Jacksonville
1370	Miami
1600	Orlando
1930	Sarasota-Bradenton
2075	Tampa-St. Petersburg

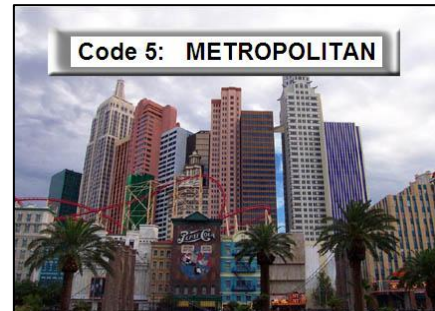
**URBSIZE | URBAN SIZE**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
2		FHWA, HPMS, Work Program	All functionally classified roadways On or Off the SHS, ramps with ramp functional classification, and Managed Lanes.	N/A	N/A

**Definition/Background:** Describes the size of the urban or urbanized area by population.

**Cross-Reference/Tolerance:** Milepoints must be consistent with HWYLOCAL and URBAREA in Feature 124 and characteristics in Feature 121.

**How to Gather this Data:** Use the urban size value indicated in the urban area number table (provided herein). If an area is not listed there and it is not part of a listed urban area, code 1 for Rural.



Codes	Descriptions
1	Rural
2	Small Urban (5,000–49,999 population)
3	Small Urbanized (50,000–199,999 population)
4	Large Urbanized (200,000–499,999 population)
5	Metropolitan (500,000 or more population)

## FEATURE 125

### ADJACENT LAND CLASSIFICATION

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	Yes	No	Length	No	Yes
Responsible Party for Data Collection		See each characteristic			

**Definition/Background:** Records the limits of the prevailing type of land use and the pavement roughness index.

### ROUGHIND | PAVEMENT ROUGHNESS INDEX

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
47		FHWA, HPMS, Performance Management Office, Pavement Office, Work Program, MPOs	All rural or urban principal arterials, HPMS standard samples on rural minor arterials, NHS roadways, or SIS roadways designated as SIS, emerging SIS, SIS connector, or emerging SIS connector.	N/A	N/A
Responsible Party for Data Collection		State Materials Office; updated by TDA			

**Definition/Background:** Pavement roughness is the actual calibrated roughness measurement to the nearest inch per mile.

**How to Gather this Data:** Do not gather, this is entered into RCI by TDA.

**Value for Pavement Roughness Index:** 3 Bytes: XXX—Entered by TDA (do not record)



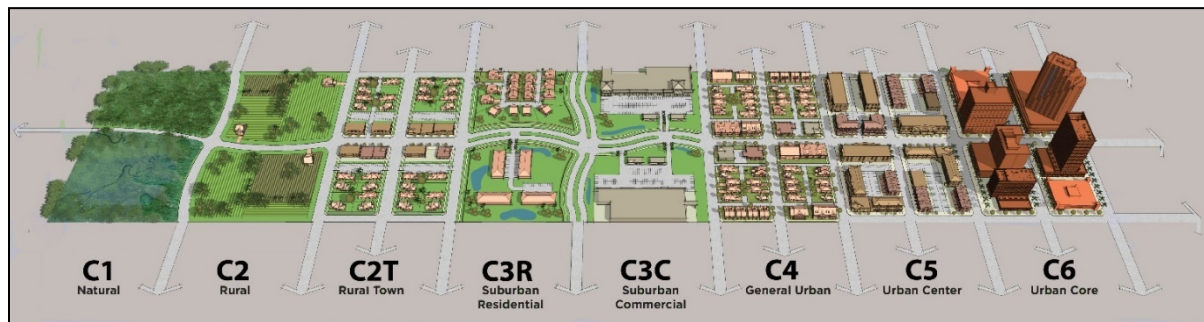


## FEATURE 126

### PRELIMINARY CONTEXT CLASSIFICATION

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	Yes	No	Length	Yes	Yes
<b>Responsible Party for Data Collection</b>		The District Complete Streets Coordinator will determine the current and future context classification designation, along with the dates, and coordinate with the District RCI staff to get this information into the RCI database.			

**Definition/Background:** Denotes the preliminary Context Classification assigned by the district to each roadway segment. For final context classification to be used at the project level, contact the District Complete Streets Coordinator. The Preliminary Context Classification contained in RCI is sufficient for research and general information purposes. The context classification denotes the criteria for roadway design elements for safer streets that promote safety, economic development, and quality of life. All non-limited access state highways will be evaluated and assigned a preliminary current context classification. For growth development and design purposes, a future context classification also will be assigned.



### CCTXTCLS | PRELIMINARY CURRENT CONTEXT CLASSIFICATION FCTXTCLS | FUTURE CONTEXT CLASSIFICATION

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
2	N/A	Roadway Design, Transportation Development, Program Management, Traffic Operations	All roadways on the SHS.	N/A	N/A

**Cross-Reference/Tolerance:** Verify the roadway ID and milepoint limits in the RCI database are consistent with the limits of the context classification.

**How to Gather this Data:** Code the highest context classification for the composite limits of the roadway. All non-limited access state highways are evaluated using the FDOT Context Classification August 2017 document as a guide ([https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/roadway/completestreets/files/fdot-context-classification.pdf?sfvrsn=12be90da\\_2](https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/roadway/completestreets/files/fdot-context-classification.pdf?sfvrsn=12be90da_2)). Limited access facilities are assigned only one code—LA—Limited Access. Any questions regarding this information should be directed to the State Complete Streets Program Manager.

Codes	Descriptions	Additional Information
<b>C1</b>	Natural	Lands preserved in a natural or wilderness condition, including lands unsuitable for settlement due to natural conditions.
<b>C2</b>	Rural	Sparsely settled lands, may include agricultural land, grassland, woodland, and wetlands.
<b>C2T</b>	Rural Town	Small concentrations of developed areas immediately surrounded by rural and natural areas; includes many historic towns.
<b>C3R</b>	Suburban Residential	Mostly residential uses within large blocks and a disconnected/sparse roadway network.
<b>C3C</b>	Suburban Commercial	Mostly non-residential uses with large building footprints and large parking lots. Buildings are within large blocks and a disconnected/sparse roadway network.
<b>C4</b>	Urban General	Mix of uses set within small blocks with a well-connected roadway network. May extend long distances. The roadway network usually connects to residential neighborhoods immediately along the corridor and/or behind the uses fronting the roadway.
<b>C5</b>	Urban Center	Mix of uses set within small blocks with a well-connected roadway network. Typically concentrated around a few blocks and identified as part of the civic or economic center of a community, town, or city.
<b>C6</b>	Urban Core	Areas with the highest densities and building heights and within FDOT classified Large Urbanized Areas (population > 1,000,000). Many are regional centers and destinations. Buildings have mixed uses, are built up to the roadways, and are within a well-connected roadway network.
<b>LA</b>	Limited Access	This code (and only this code) is used for roadways with grade separation and limited access such as Interstates and Expressways.

Special District codes are for areas that due to their unique characteristics and function, do not adhere to standard measures identified in the Context Classification Matrix. The codes for Special Districts are:

Codes	Descriptions
<b>SDC1</b>	Special District/Natural
<b>SDC2</b>	Special District/Rural
<b>SDC2T</b>	Special District/Rural Town
<b>SDC3R</b>	Special District/Suburban Residential
<b>SDC3C</b>	Special District/Suburban Commercial
<b>SDC4</b>	Special District/Urban General
<b>SDC5</b>	Special District/Urban Center
<b>SDC6</b>	Special District/Urban Core

**CCTXTDTE | PRELIMINARY CURRENT CONTEXT CLASSIFICATION DATE**  
**FCTXTDTE | FUTURE CONTEXT CLASSIFICATION DATE**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Roadway Design, Transportation Development, Program Management, Traffic Operations	All roadways on the SHS.	N/A	N/A

**Definition/Background:** The date the preliminary current and future context classification were assigned.

**Responsible Party for Data Collection:** The District Complete Streets Coordinator will assign the preliminary current and future context classification designation date and coordinate with the District RCI staff to populate this information into the RCI database.

**How to Gather this Data:** Code the date for the preliminary current and future context classification.

**Cross-Reference/Tolerance:** Verify the format of the date was entered correctly.

**Date Assigned:** MM/DD/YYYY

**Example:** December 1, 2017 = 12/01/2017

## FEATURE 137

### *MAINTENANCE AREA BOUNDARY*

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	No	No	Length	No	Yes
<b>Responsible Party for Data Collection</b>		District Office of Maintenance			

**Definition/Background:** Designates each section and sub-section of a SR within a county as being under the responsibility of a Maintenance Unit cost center.

Checks are continuously required to ensure each roadway section/sub-section within the active milepoint limits have this characteristic validated. Any errors in this data will show up in the Consistency Edit Report that should be run each month.

#### CCNUMBER | COST CENTER NUMBER

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Roadway Design, Transportation Development, Program Management, Traffic Operations	All roadways functionally classified On the SHS, Active Exclusive (ramps, frontage roads, managed lanes).	N/A	N/A

**How to Gather this Data:** Add the current cost center of the responsible Maintenance Unit. This characteristic must be entered by each county, section, and sub-section for each state road in the physical boundary of the maintenance cost center.

The location for this characteristic is always entered as “C” composite. Only one entry is required per section/sub-section.

**Value for Cost Center Number:** 3 Bytes: XXX



## FEATURE 138

### ROADWAY REALIGNMENT

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	No	No	Length	Yes	Yes
Responsible Party for Data Collection		District Planning			

**Definition/Background:** The purpose of coding Feature 138 & 139 is to provide information when a route has a change in the alignment. For more examples, there are several typical realignment scenarios shown in Chapter 5 of this handbook. This feature records the limits of the new alignment of a roadway with the completion date.

#### NALIGNID | SECTION/SUB-SECTION OF NEW ALIGNMENT

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Planning	All roadways functionally classified On the SHS.	N/A	N/A

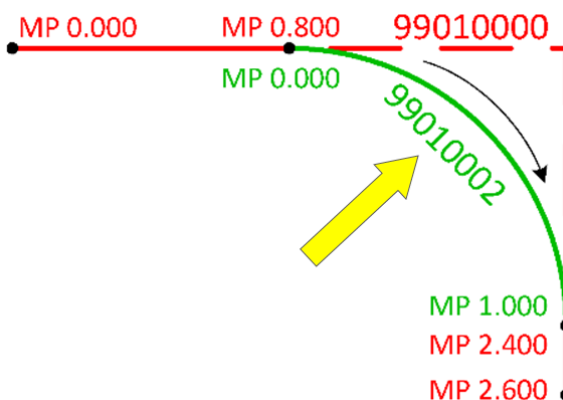
**Definition/Background:** This identifies the roadway ID for the new alignment.

**Important When Gathering:** Use the correct number.

**How to Gather this Data:** Record the roadway ID number of the new alignment beginning at the junction of the old and new alignment. Add the new roadway information to the old alignment in RCI. The old alignment retains data for historical purposes, but certain elements are retained and automatically uploaded to the new roadway ID record in RCI. The data from the old alignment should be retained for a minimum of one year after the roadway has been physically deleted, then after the one-year anniversary date of the physical deletion, the data may be removed from RCI.

In this example, roadway ID 99010000 was deleted (physically removed) from milepoint 0.800 to milepoint 2.400 and replaced with roadway ID 99010002. Code the required information for Feature 138 under roadway ID 99010000. Feature 139 will be automatically populated on 99010002 since this is the new alignment roadway ID.

**Value for Roadway ID of New Alignment:** 8 Bytes: XXXXXXXX—County/section/sub-section



## NALIGNDT | NEW ALIGNMENT DATE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Planning	All roadways functionally classified On the SHS.	N/A	N/A

**Definition/Background:** This is the date the realignment was completed.

**Important When Gathering:** Ensure the date is accurate.

Date of Realignment in  
“MMDDYYYY”

e.g., 01311997

**How to Gather this Data:** Record the date that the new roadway ID officially opened. The date should be formatted in MMDDYYYY, i.e., January 31, 1997 would be 01311997. Add the new roadway ID information to the old alignment in RCI. The old alignment retains data for historical purposes. The data from the old alignment should be retained for a minimum of one year after the roadway has been physically deleted, then after the one-year anniversary date of the physical deletion the data may be removed from RCI.

**Special Situations:** Not all roadway reconstruction is considered a realignment. A roadway is considered a realignment if it replaces the function of an existing alignment, when the existing alignment is changed from on SHS to off SHS, or is physically removed. Otherwise, the roadway is simply a new roadway to be added to the system.

**Value for New Alignment Date:** 8 Bytes: MMDDYYYY—Date realignment officially added to the SHS (the effective date on the signed SHS paperwork). Example: 01311997 is January 31, 1997

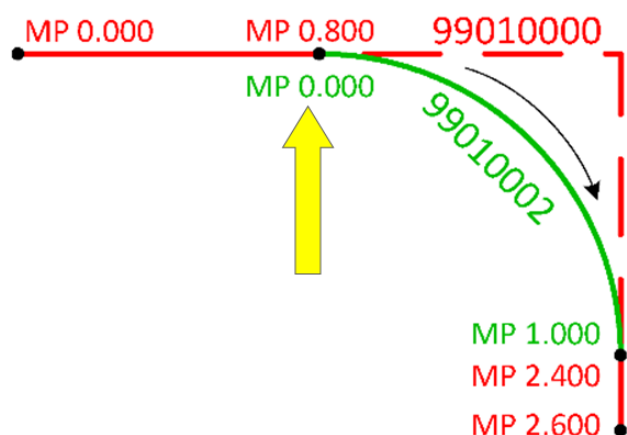
## NALNBGPT | NEW ALIGNMENT BEGIN MILEPOINT

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Planning	All roadways functionally classified On the SHS.	N/A	N/A

**Definition/Background:** This identifies the begin milepoint for the new alignment where it joins to the existing roadway.

**How to Gather this Data:** Record at the junction of the old and new alignment and the beginning of the new alignment. Always code the lowest milepoint first and the highest milepoint last, regardless of the corresponding direction.

Record the beginning milepoint for the new alignment in the value column. On the old alignment, code with the information for the new roadway ID. The old alignment retains data for historical purposes, but certain elements are retained and automatically uploaded to the new roadway ID record in RCI. The data from the old alignment should be retained



for a minimum of one year after the roadway has been physically deleted, then after the one-year anniversary date of the physical deletion, the data may be removed from RCI.

**Value for New Alignment BMP:** 6 Bytes: XXX.XXX—Beginning milepoint number

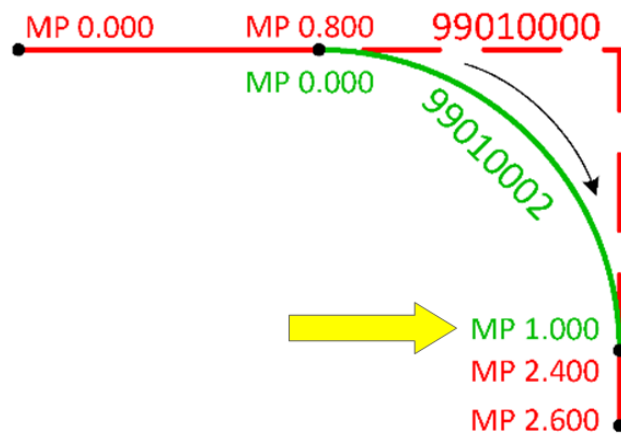
### NALNENPT | NEW ALIGNMENT END MILEPOINT

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Planning	All roadways functionally classified On the SHS.	N/A	N/A

**Definition/Background:** Identifies the ending milepoint for the new alignment

**How to Gather this Data:** Record at the end of the new alignment where it contacts the old alignment. Always code the lowest milepoint first and the highest milepoint last, regardless of the corresponding direction.

Record the ending milepoint for the new alignment in the value column. In RCI, on the old alignment, code with the information for the new roadway ID. The old alignment retains data for historical purposes, but certain elements are retained and automatically uploaded to the new roadway ID record in RCI. The data from the old alignment should be retained for a minimum of one year after the roadway has been physically deleted, then after the one-year anniversary date of the physical deletion the data may be removed from RCI.



**Value for New Alignment EMP:** 6 Bytes: XXX.XXX—Ending milepoint number

## FEATURE 139

### NEW REALIGNMENT

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	No	No	Length	Yes	Yes
<b>Responsible Party for Data Collection</b>		Automatically generated from Feature 138			

In this example, Feature 139 automatically records under roadway ID 99010002 from milepoint 0.000 to 1.000 with a value of roadway ID 99010000.

**Definition/Background:** This feature automatically generates when Feature 138 is coded. It identifies the old roadway ID and milepoint for the roadway segment.

Do not delete Feature 139 or any of its characteristics.

**OALIGNID | SECTION/SUB-SECTION OF OLD ALIGNMENT**  
**OALNBGPT | OLD ALIGNMENT BEGIN MILEPOINT**  
**OALNENPT | OLD ALIGNMENT END MILEPOINT**

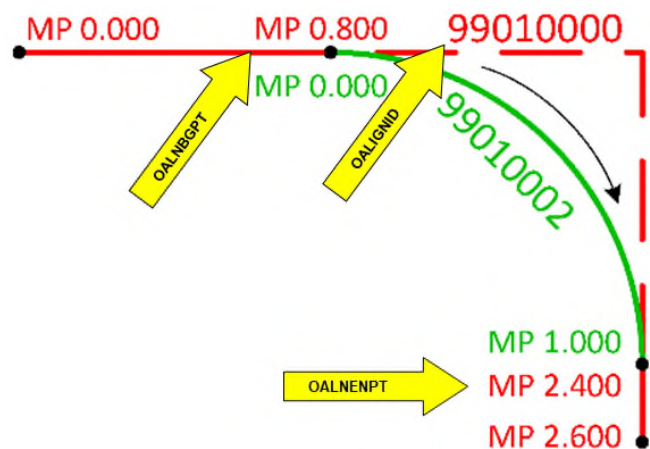
HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Planning	Automatically generates when Feature 138 has been coded.	N/A	N/A

**Value for Roadway ID of Old Alignment:** 8 Bytes: XXXXXXXX—Automatically generates

**Value for Old Alignment BMP:** 6 Bytes: XXX.XXX—Automatically generates

**Value for Old Alignment EMP:** 6 Bytes: XXX.XXX—Automatically generates

The old alignment retains data for historical purposes. The data from the old alignment should be retained for at a minimum of one year after the roadway has been physically deleted, then after the one-year anniversary date of the physical deletion, the data may be removed from RCI. Feature 140 also should be changed to Deleted (physically removed) or Inactive (not in use).





## FEATURE 140

### SECTION STATUS EXCEPTION

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	Yes	No	Length	Yes	Yes
Responsible Party for Data Collection		District Planning			

**Definition/Background:** This feature gives the date that the roadway ID or segment was taken off or added to the SHS, or the date of the last status change to the roadway ID or segment to accommodate maintenance, bridge number assignment or other needs which require data to be entered into RCI.

#### OSDATE | ON OR OFF-SYSTEM DATE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Safety (for crash records of SHS roadways after they are removed from the SHS), Central Planning, District Planning	All functionally classified roadways On or Off the SHS.	N/A	N/A

**Definition/Background:** The date a roadway is added or removed from the State Highway System is important.

Date of Revision in  
“MMDDYYYY”

e.g., 01311997

**How to Gather this Data:** Record the date the section of roadway was added or removed from the SHS. The date format is MMDDYYYY, i.e., 01311997 is January 31, 1997.

**Value for On/Off-System Date:** 8 Bytes: MMDDYYYY—Date roadway was officially added/deleted off the SHS (the effective date on the signed SHS paperwork). Example: 01311997 is January 31, 1997.

#### STATEXPT | SECTION STATUS (AKA UNDERLYING STATUS)

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
6		General info, wide use, Financial Management (FM), Central Planning, District Planning	All roadways, rails, and trails.	N/A	N/A

**Definition/Background:** Section status is a continuous feature and therefore must be coded for the complete roadway ID length without gaps, unless there is a physically deleted segment (Feature 138) and/or a stationing exception (Feature 141). Data for stationing exceptions is represented on another roadway ID to avoid duplicate reporting and exaggerated system mileage.

**How to Gather this Data:** Record status code 01-95. The sum of the drivable segments is the net length and must be coded for the complete roadway ID. If gaps are identified, code Features 138 and 141 accordingly.

Roadway Codes	Descriptions	Additional Information
01	Pending	May be added to the roadway network.
02	Active On the SHS	Route owned and maintained by FDOT.
04	Inactive	Route must be kept indefinitely, for historic purposes.
05	Deleted	Route has been physically removed, but roadway ID and data must remain for a minimum of one year.
07	Active Exclusive	Ramps owned and maintained by FDOT.
08	Managed Lane	Lanes that are added to increase capacity along a route and have their own alignment that may run concurrent with a mainline route (e.g., I-95 Express).
09	Active Off the SHS	Routes owned by other jurisdictions (or private) and not part of the SHS, not maintained by FDOT.
10	GIS Route	Route used solely for the LRS, it uses the 800 series sub-section number, i.e., a roadway ID with the number 8 in the 6 <sup>th</sup> position.
16	Local Roads with FM Projects	Used by the District Work Program Office to identify FM projects on local roadways off the SHS and off the Federal Aid System, it uses the 900-series section number, i.e., a roadway ID with the number 9 in the 3 <sup>rd</sup> position.
17	Active Off Exclusive	Ramps owned by other jurisdictions (or private) and not maintained by FDOT.

Trail Codes	Descriptions	Additional Information
81	Pending Trails	New construction or anticipated to be added
82	Active Trails	Open for use
84	Inactive Trails	No longer open for use
85	Deleted Trails	Physically removed

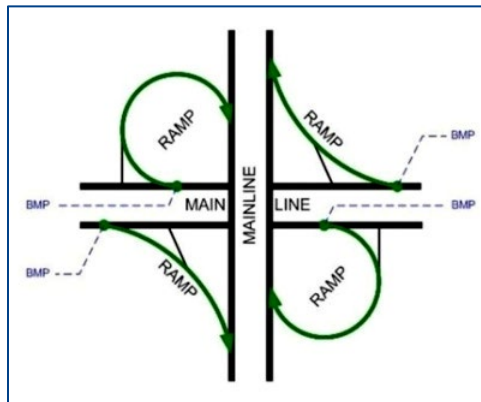
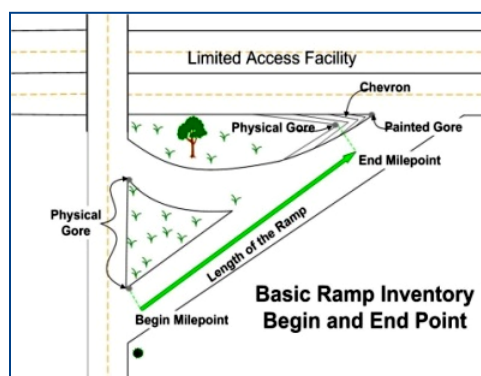
Rail Codes	Descriptions	Additional Information
91	Pending Rail Line	New construction or rail line transfers anticipated to be added
92	Active Rail Line	Rail line that is operational
94	Inactive Rail Line	Rail line that is no longer operational
95	Deleted Rail Line	Physically removed rail line

**Special Situations:** When it is necessary to have more than one status on a roadway, the overall status in the View/Update/Delete (VUD) screen must be changed to Active with Combination. When coding a roadway ID that has a physically deleted segment, the data from the old alignment should be retained for a minimum of one

year after the roadway has been physically deleted, then after the one-year anniversary date of the physical deletion the data may be removed from RCI.

Feature 140 should be coded Inactive or Deleted for segments of the roadway only. If the entire roadway becomes Inactive or Deleted, do not change Feature 140. Instead, change the overall status in the VUD screen and keep the section status of the roadway ID intact for historical purposes.

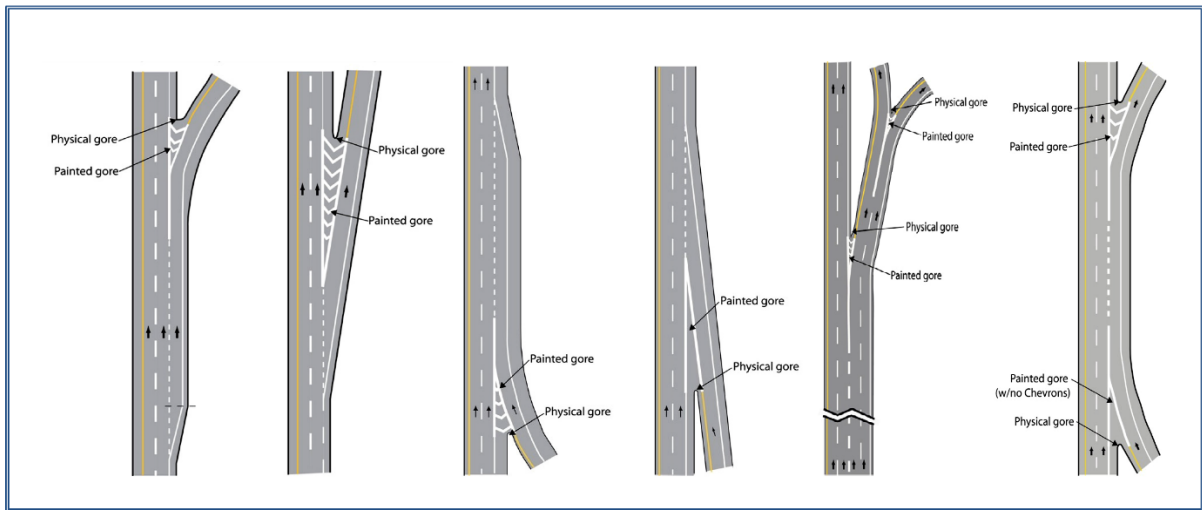
**Active Exclusive Roadways:** On and off ramps are concerned with documenting the existence and limits, such as the beginning and ending points of the ramp. On full access-controlled facilities, ramps usually abut or connect auxiliary lanes, i.e., acceleration and/or deceleration lanes, before reconnecting or completing a connection to through lanes or even to another ramp. When collecting ramps, Districts should not be concerned with picking up or accounting for raised concrete curbs or other non-painted separators, since the Office of Maintenance already collects these materials. We are mainly concerned with documenting the connectivity between mainlines, ramps, and auxiliary lanes.



With practice, determining the location of the physical gore or identifying the type of physical gore should become easier. The following considerations should be practiced.

- When a ramp intersects the roadway, measure from the physical gore. A physical gore is where the pavement of the ramp leaves or meets the pavement of the mainline. A painted gore is where the travel lane(s) of the ramp meet the travel lane(s) of the mainline and should be measured as an auxiliary lane.
- If a ramp is split at either end, the inventory route of the ramp (and its roadway ID) continues along the longest path, usually along the curve.
- If both pieces of the split-end ramp are about the same length, use the endpoint that terminates farthest from the interchange, which is usually along the curve and does not have a traffic control, i.e., signal.
- If a portion stub of a split-ramp is long enough that it merits its own roadway ID, the District may assign a roadway ID by submitting an LRS package.
- If the endpoint or the physical gore of the ramp is difficult to determine and joins the mainline in a widely paved area with only a painted gore in the vicinity of the ramp, use the engineering judgment to locate the approximate exact endpoint of the ramp. This is a very rare situation and requires a judgment call.

This diagram represents a general ramp configuration as an example.



**Special Situations:** When it is necessary to have more than one status on a roadway, the overall status in the View/Update/Delete (VUD) screen must be changed to Active with Combination. When coding a roadway ID that has a physically deleted segment, the data from the old alignment should be retained for one year after the roadway has been physically deleted, then after the one-year anniversary date of the physical deletion the data should be removed from RCI.

This feature should be coded Inactive or Deleted for segments of the roadway only. If the entire roadway becomes Inactive or Deleted, do not change this feature. Instead, change the overall status in the VUD screen and keep the section status of the roadway ID intact for historical purposes.

## EXAMPLES



01: Pending



02: Active On the SHS



04: Inactive



05: Deleted



07: Active Exclusive



08: Managed Lane



09: Active Off the SHS



10: GIS Route



17: Active Off Exclusive

## FEATURE 141

### STATIONING EXCEPTION

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	No	No	Length	Yes	Yes
Responsible Party for Data Collection		District Planning			

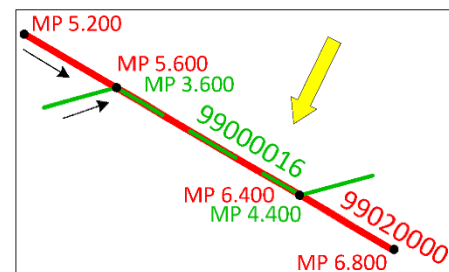
**Definition/Background:** Stationing exceptions are used to indicate where two Roadway IDs traverse the same segment between two points (usually intersections). Only one of the roadways carries the data and the other roadway points to it. This is to avoid duplication of mileage.

#### RDWYID | COUNTY, SECTION, SUB-SECTION

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Central Planning, District Planning, Safety, Financial Management	Only when an exception occurs.	N/A	N/A

**Definition/Background:** Denotes the roadway ID for an exception. This roadway ID number identifies where features and characteristic information is carried.

**How to Gather this Data:** For roadways that are exceptions, enter the roadway ID for that part of the roadway that is an exception. Roadway ID is a composite of the county, section and sub-section numbers for the roadway.



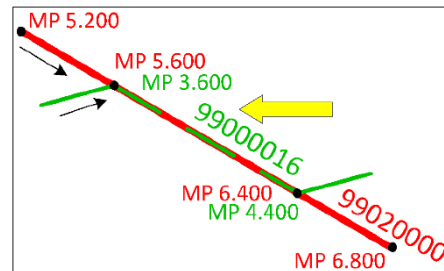
**Value for Roadway ID of Exception:** 8 Bytes: XXXXXXXX—County/section/sub-section

**BEGSECPT | BEGIN SECTION MP OF EXCEPTION FIELD**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Central Planning, District Planning, Safety, Financial Management	Only when an exception occurs.	N/A	N/A

**Definition/Background:** Denotes lowest milepoint for the roadway that carries the exception information.

**How to Gather this Data:** Record the beginning lowest milepoint for the roadway that carries the exception information in the value column. The net length of the two corresponding segments should always equal each other. Always code the lowest milepoint first and the highest milepoint last, regardless of the corresponding direction.



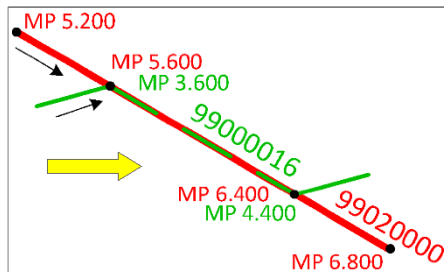
**Value for BMP of Exception:** 6 Bytes: XXX.XXX—Beginning lowest milepoint

**ENDSECPT | END SECTION MP OF EXCEPTION FIELD**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Central Planning, District Planning, Safety, Financial Management	Only when an exception occurs.	N/A	N/A

**Definition/Background:** Denotes highest milepoint for the roadway that carries the exception information.

**How to Gather this Data:** Record the ending highest milepoint for the roadway that carries the exception information in the value column. The net length of the two corresponding segments should always equal one another. Always code the lowest milepoint first and the highest milepoint last, regardless of the corresponding direction.



**Value for EMP of Exception:** 6 Bytes: XXX.XXX—Ending highest milepoint



## FEATURE 142

### MANAGED LANES

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	Yes	No	Length	No	Yes
Responsible Party for Data Collection		District Planning			

**Definition/Background:** This feature is used to identify on the mainline where there are associated managed lanes. Additionally, it is used to identify the correlating mainline for which the managed lanes are attached.

### Code on Managed Lane

This is to create a reference to the Associated Mainline.

MAINRDWY   MAINLINE ROADWAY ID					
HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Central Planning, District Planning, Safety, Financial Management, District Office of Maintenance	All Managed Lanes.	N/A	N/A

**Definition/Background:** The mainlines roadway ID. This is coded on each managed lane.

**How to Gather this Data:** Record the roadway ID of the mainline.

**Value for Mainline Roadway ID:** 8 Bytes: XXXXXXXX



**MAINBMP | MAINLINE BEGIN MILEPOINT**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Central Planning, District Planning, Safety, Financial Management, District Office of Maintenance	All Managed Lanes.	N/A	N/A

**Definition/Background:** The milepoint where the managed lane is physically separated from the mainline. This is coded on each managed lane.

**How to Gather this Data:** Travel along the mainline to collect the mainline milepoint where the managed lane is first encountered/begins.

**Value for Mainline BMP:** 6 Bytes: XXX.XXX

**MAINEMP | MAINLINE END MILEPOINT**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Central Planning, District Planning, Safety, Financial Management, District Office of Maintenance	All Managed Lanes.	N/A	N/A

**Definition/Background:** The milepoint where the managed lane reconnects to the mainline. This is coded on each managed lane.

**How to Gather this Data:** Travel along the mainline to collect the mainline milepoint where the managed lane is last encountered/ends.

**Value for Mainline EMP:** 6 Bytes: XXX.XXX

## Code on the Mainline—Reversible Managed Lane

### CMLRDWY | COMPOSITE MANAGED LANE ROADWAY ID

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Central Planning, District Planning, Safety, Financial Management, District Office of Maintenance	Mainline roadways that have an associated Managed Lane.	N/A	N/A

**Definition/Background:** The composite managed lane’s roadway ID. This is coded on the mainline. The composite managed lanes are typically reversible.

**How to Gather this Data:** Record the roadway ID of the composite managed lane.

**Value for Composite Managed Lane Roadway ID:** 8 Bytes: XXXXXXXX

### CMLBMP | COMPOSITE MANAGED LANE BEGIN MILEPOINT

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Central Planning, District Planning, Safety, Financial Management, District Office of Maintenance	Mainline roadways that have an associated Managed Lane.	N/A	N/A

**Definition/Background:** The milepoint where the composite managed lane begins. usually at BMP 0.000. This is coded on the mainline.

**How to Gather this Data:** Travel along the composite managed lane to collect its BMP. If the managed lane begins before the mainline, record the BMP as 0.000 (or the lowest milepoint for the mainline).

**Value for Composite Managed Lane BMP:** 6 Bytes: XXX.XXX

**CMLEMP | COMPOSITE MANAGED LANE END MILEPOINT**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Central Planning, District Planning, Safety, Financial Management, District Office of Maintenance	Mainline roadways that have an associated Managed Lane.	N/A	N/A

**Definition/Background:** The milepoint where the composite managed lane ends. This is coded on the mainline.

**How to Gather this Data:** Travel along the composite managed lane to collect its EMP.

**Value for Composite Managed Lane EMP:** 6 Bytes: XXX.XXX

*Code on the Mainline—Left Managed Lane***LMLRDWY | LEFT MANAGED LANE ROADWAY ID**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Central Planning, District Planning, Safety, Financial Management, District Office of Maintenance	Mainline roadways that have an associated Managed Lane.	N/A	N/A

**Definition/Background:** The left managed lane's roadway ID. This is coded on the mainline.

**How to Gather this Data:** Record the roadway ID of the left managed lane.

**Value for Left Managed Lane Roadway ID:** 8 Bytes: XXXXXXXX

**LMLBMP | LEFT MANAGED LANE BEGIN MILEPOINT**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Central Planning, District Planning, Safety, Financial Management, District Office of Maintenance	Mainline roadways that have an associated Managed Lane	N/A	N/A

**Definition/Background:** The milepoint where the left managed lane begins, usually at BMP 0.000. This is coded on the mainline. If the managed lane begins before the mainline, record the BMP as 0.000 (or the lowest milepoint for the mainline).

**How to Gather this Data:** Travel along the left managed lane to collect its BMP.

**Value for Left Managed Lane BMP:** 6 Bytes: XXX.XXX

### LMLEMP | LEFT MANAGED LANE END MILEPOINT

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Central Planning, District Planning, Safety, Financial Management, District Office of Maintenance	Mainline roadways that have an associated Managed Lane.	N/A	N/A

**Definition/Background:** The milepoint where the left managed lane ends. This is coded on the mainline.

**How to Gather this Data:** Travel along the left managed lane to collect its EMP.

**Value for Left Managed Lane EMP:** 6 Bytes: XXX.XXX

### *Code on the Mainline—Right Managed Lane*

### RMLRDWY | RIGHT MANAGED LANE ROADWAY ID

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Central Planning, District Planning, Safety, Financial Management, District Office of Maintenance	Mainline roadways that have an associated Managed Lane.	N/A	N/A

**Definition/Background:** The right managed lane's roadway ID. This is coded on the mainline.

**How to Gather this Data:** Record the roadway ID of the right managed lane.

**Value for Right Managed Lane Roadway ID:** 8 Bytes: XXXXXXXX

**RMLBMP | RIGHT MANAGED LANE BEGIN MILEPOINT**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Central Planning, District Planning, Safety, Financial Management, District Office of Maintenance	Mainline roadways that have an associated Managed Lane.	N/A	N/A

**Definition/Background:** The milepoint where the right managed lane begins, usually at BMP 0.000. This is coded on the mainline. If the managed lane begins before the mainline, record the BMP as 0.000 (or the lowest milepoint for the mainline).

**How to Gather this Data:** Travel along the right managed lane to collect its BMP.

**Value for Right Managed Lane BMP:** 6 Bytes: XXX.XXX

**RMLEMP | RIGHT MANAGED LANE END MILEPOINT**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Central Planning, District Planning, Safety, Financial Management, District Office of Maintenance	Mainline roadways that have an associated Managed Lane.	N/A	N/A

**Definition/Background:** The milepoint where the right managed lane ends. This is coded on the mainline.

**How to Gather this Data:** Travel along the right managed lane to collect its EMP.

**Value for Right Managed Lane EMP:** 6 Bytes: XXX.XXX

Managed lanes refer to toll lanes that are in conjunction with mainline facilities that allow for variable situations depending on traffic volume and roadway conditions. An example is the I-95 Express. Another name for managed lanes is high occupancy toll (HOT) lanes.

Each direction of travel of the managed lanes will be assigned a roadway ID. The roadway ID number of the managed lane will match the associated mainline section number and the sub-section number will be in the 900 series. The managed lanes will be coded as Active Exclusive under the inventory type and as managed lanes under the roadway type. Managed lanes will be inventoried as part of the District's 5-year inventory cycle and will be at the same cycle along with their associated mainline roadway.

For inventory requirements, reference the Managed Lanes RCI Inventory requirements in Chapter 5 of this Handbook.

Managed lanes will not add centerline miles to the SHS, but will add lane miles, which will provide proper funding to the Office of Maintenance. Managed lanes will be added and maintained in the LRS and RCI. Effective December 2017.

SLDs will be required for managed lanes. Display Section Q Managed Lanes on the mainline SLD to display the limits of the associated managed lanes. Managed lanes will be displayed as mainline facilities on the County Section Number Key Sheets.

#### *Coding Managed Lanes in RCI*

1. Assign a roadway ID to each travelway.
2. Inventory each roadway ID in the direction it travels, i.e., the ascending managed lanes are inventoried from south to north, and the descending managed lanes are inventoried from north to south.
3. The two roadway IDs for the managed lanes can be of unequal length.
4. The managed lanes will not add any centerline mileage to the state highway system nor any mileage to the interstate system.
5. The VMT for the managed lanes will increase the interstate total VMT.
6. The lanes for the managed lanes will be added to the mainline total number of lanes for reporting purposes.
7. Code Feature 142—Managed Lanes. The listed characteristics items “a” through “i” are coded for the mainline roadway. Characteristic items “j” through “l” are coded for the managed lane roadways.

#### Mainline Roadway (to associate to the appropriate managed lanes)

- a. RMLRDWY—Right Managed Lane Roadway ID
- b. RMLBMP—Right Managed Lane Begin Milepoint
- c. RMLEMP—Right Managed Lane End Milepoint
- d. LMLRDWY—Left Managed Lane Roadway ID
- e. LMLBMP—Left Managed Lane Begin Milepoint
- f. LMLEMP—Left Managed Lane End Milepoint
- g. CMLRDWY—Composite Managed Lane Roadway ID
- h. CMLBMP—Composite Managed Lane Begin Milepoint
- i. CMLEMP—Composite Managed Lane End Milepoint

#### Managed Lane Roadways (to associate to the mainline)

- j. MAINRDWY—Roadway ID for the associated mainline highway
- k. MAINBMP—Begin Milepoint of the associated mainline highway
- l. MAINEMP—End Milepoint of the associated mainline highway

8. MLTRFSEP Managed Lane Separator, is under Feature 214. It is only coded for managed lane roadways. The MLTRFSEP codes are:

**0:** None      **1:** Flexible Posts      **2:** Guardrail      **3:** Barrier Wall      **4:** Vegetation

9. Where characteristics under Feature 119 and Feature 212 break in relationship to the beginning/ending location of a managed lane, ensure that the milepoint limits for these characteristics exactly match the BMP/EMP of the managed lane coded under Feature 142.

## **CASE A | LOCATIONS WHERE THE MANAGED LANES RUN ADJACENT TO THE INTERSTATE LANES**

Mainline:

1. There is no median or inside shoulder between the mainline and the managed lane of the same direction. Therefore, code Feature 215—Code RDMEDIAN as code 50—Non-counted Managed Lane. Do not code Feature 219.

Managed Lanes:

1. The delineator (MLTRFSEP) is between the free and tolled lanes will only be coded once, and will be assigned to the managed lanes roadway ID.
2. The type and width of the inside shoulders will be coded.
3. Half of the median width will be coded for each managed lane roadway.
4. In locations where the managed lane shares a bridge with the mainline, the bridge number is also coded on the managed lane roadway ID.
5. In locations where the NB and SB managed lanes share a bridge, code the bridge number on both of the managed lanes roadway ID.
6. Code any tolling data that applies in Feature 122 and Feature 119.
7. Code lanes and surface width under Feature 212. Do not include managed lanes in the count for NOLANES on the mainline roadway ID.

## **CASE B | LOCATIONS WHERE ONE MANAGED LANE OCCUPIES A NEW ALIGNMENT**

Mainline:

1. There is no median or inside shoulder between the mainline and the managed lane of the same direction. However, if there is not a managed lane between the through lanes and the inside shoulder/median then code the inside shoulder and ½ the width of the median.
2. There will be no other changes made to the mainline data.

Managed Lane, separate alignment—The managed lane data will be recorded the same way as any other roadway.

Managed Lane, same alignment—Refer to Case A above.

## **CASE C | LOCATIONS WHERE THE MANAGED LANES RUN IN BETWEEN THE INTERSTATE LANES AS A POTENTIAL ONE-WAY OR REVERSIBLE FACILITY**

Mainline:

1. Code all associated features as usual.
2. Code Feature 215 RDMEDIAN as code 50.

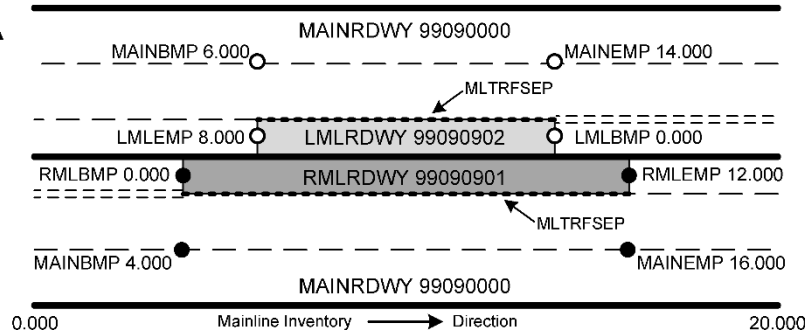
Managed Lane, separate alignment—Refer to Case A above.

Managed Lane, same alignment—The managed lane data will be recorded in the same manner as a one-way roadway. Code Feature 214 SHLDTYPE from outside edge of lane striping to the MLTRFSEP



## CASE A

Diagram



Field Data

<u>Mainline 99090000</u>	<u>Right Managed Lane 99090901</u>	<u>Left Managed Lane 99090902</u>
LMLBMP = 0.000	MAINBMP = 4.000	MAINBMP = 6.000
LMLEMP = 8.000	MAINEMP = 16.000	MAINEMP = 14.000
LMLRDWY = 99090902	MAINRDWY = 99090000	MAINRDWY = 99090000
RMLBMP = 0.000		
RMLEMP = 12.000		
RMLRDWY = 99090901		

RCI Coding Example for Case A

Roadway ID:	Man-Dist:	Geo-Dist:	County:	Beg. MP:	End. MP:	Net Length:	Overall Status:
<a href="#">99090000</a>	99	99	TEST	0.000	20.000	20.000	ACTIVE ON THE SHS
Description: MANAGED LANE CASE A MAINLINE				<a href="#">VideoLog</a>		<a href="#">Enterprise GIS</a>	

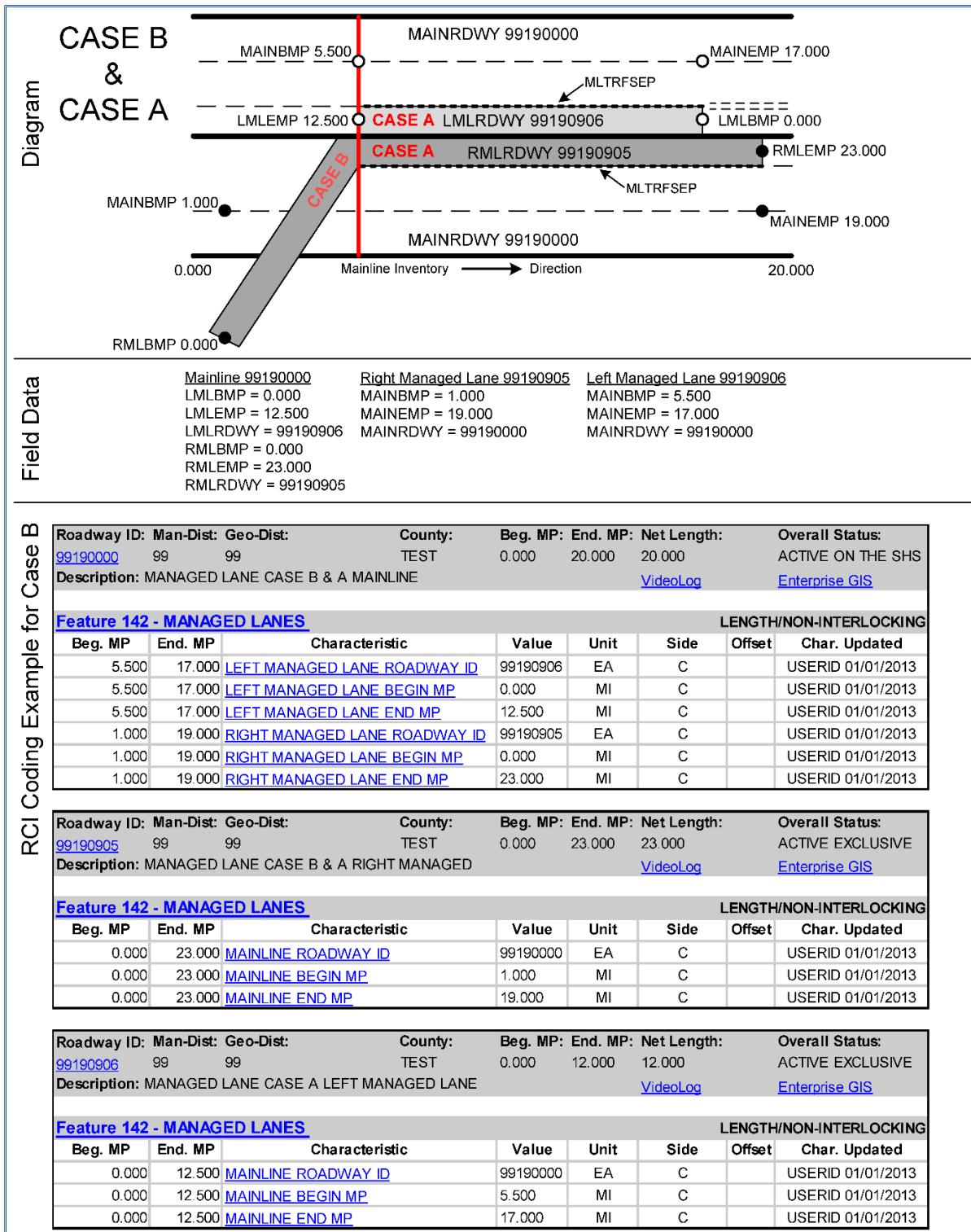
Feature 142 - MANAGED LANES							
LENGTH/NON-INTERLOCKING							
Beg. MP	End. MP	Characteristic	Value	Unit	Side	Offset	Char. Updated
6.000	14.000	<a href="#">LEFT MANAGED LANE ROADWAY ID</a>	99090902	EA	C		USERID 01/01/2013
6.000	14.000	<a href="#">LEFT MANAGED LANE BEGIN MP</a>	0.000	MI	C		USERID 01/01/2013
6.000	14.000	<a href="#">LEFT MANAGED LANE END MP</a>	8.000	MI	C		USERID 01/01/2013
4.000	16.000	<a href="#">RIGHT MANAGED LANE ROADWAY ID</a>	99090901	EA	C		USERID 01/01/2013
4.000	16.000	<a href="#">RIGHT MANAGED LANE BEGIN MP</a>	0.000	MI	C		USERID 01/01/2013
4.000	16.000	<a href="#">RIGHT MANAGED LANE END MP</a>	12.000	MI	C		USERID 01/01/2013

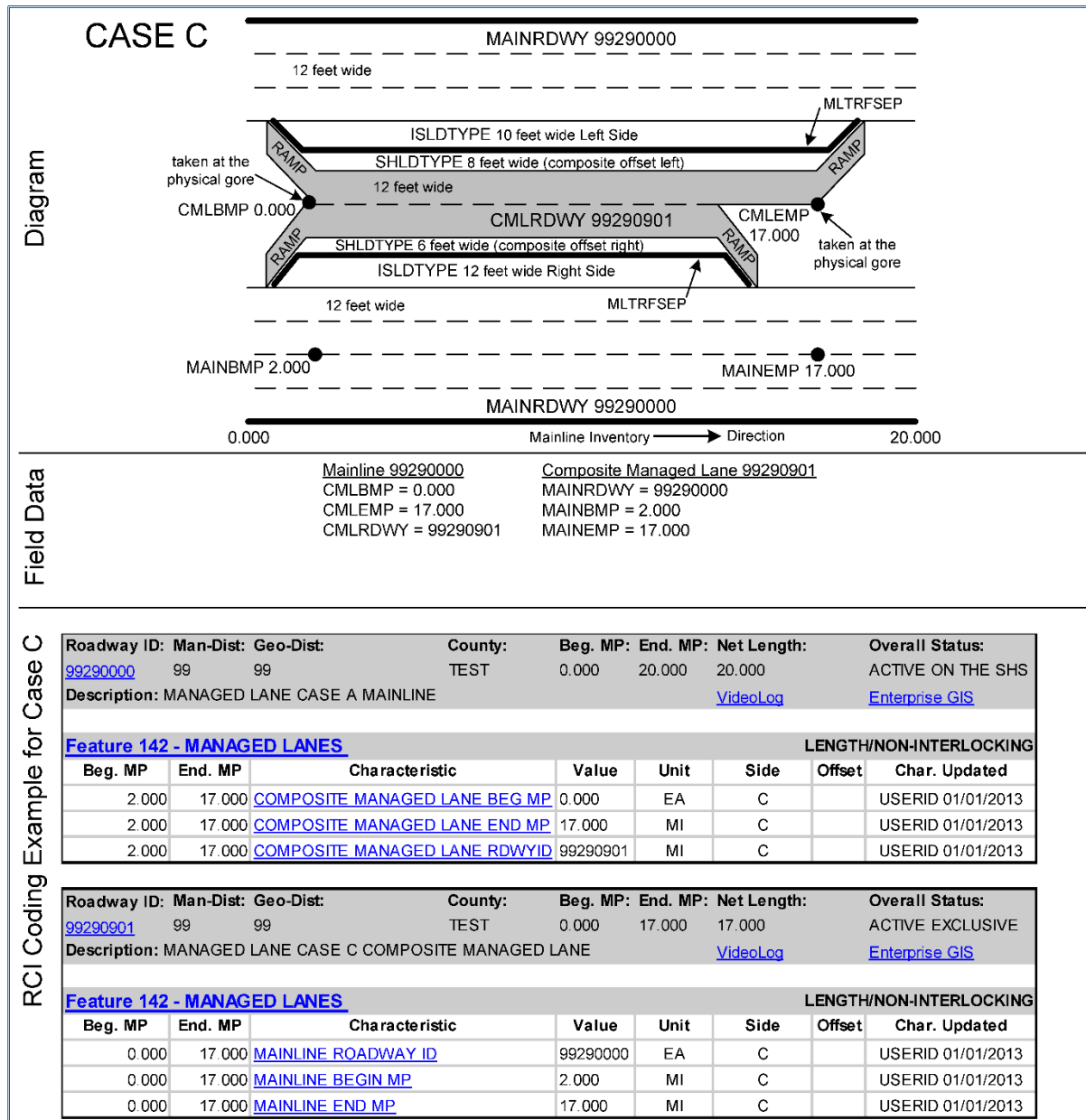
Roadway ID:	Man-Dist:	Geo-Dist:	County:	Beg. MP:	End. MP:	Net Length:	Overall Status:
<a href="#">99090901</a>	99	99	TEST	0.000	12.000	12.000	ACTIVE EXCLUSIVE
Description: MANAGED LANE CASE A RIGHT MANAGED LANE				<a href="#">VideoLog</a>		<a href="#">Enterprise GIS</a>	

Feature 142 - MANAGED LANES							
LENGTH/NON-INTERLOCKING							
Beg. MP	End. MP	Characteristic	Value	Unit	Side	Offset	Char. Updated
0.000	12.000	<a href="#">MAINLINE ROADWAY ID</a>	99090000	EA	C		USERID 01/01/2013
0.000	12.000	<a href="#">MAINLINE BEGIN MP</a>	4.000	MI	C		USERID 01/01/2013
0.000	12.000	<a href="#">MAINLINE END MP</a>	16.000	MI	C		USERID 01/01/2013

Roadway ID:	Man-Dist:	Geo-Dist:	County:	Beg. MP:	End. MP:	Net Length:	Overall Status:
<a href="#">99090902</a>	99	99	TEST	0.000	8.000	8.000	ACTIVE EXCLUSIVE
Description: MANAGED LANE CASE A LEFT MANAGED LANE				<a href="#">VideoLog</a>		<a href="#">Enterprise GIS</a>	

Feature 142 - MANAGED LANES							
LENGTH/NON-INTERLOCKING							
Beg. MP	End. MP	Characteristic	Value	Unit	Side	Offset	Char. Updated
0.000	8.000	<a href="#">MAINLINE ROADWAY ID</a>	99090000	EA	C		USERID 01/01/2013
0.000	8.000	<a href="#">MAINLINE BEGIN MP</a>	6.000	MI	C		USERID 01/01/2013
0.000	8.000	<a href="#">MAINLINE END MP</a>	14.000	MI	C		USERID 01/01/2013





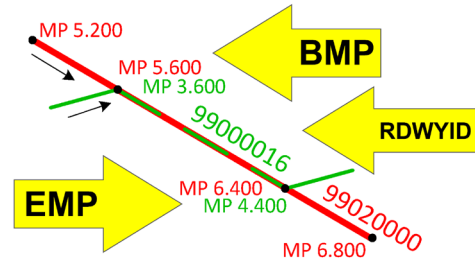
## FEATURE 143

### ASSOCIATED STATION EXCEPTION

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	No	No	Length	Yes	Yes
Responsible Party for Data Collection		District Planning			

**Definition/Background:** Stationing exceptions are used to indicate where two Roadway IDs traverse the same segment between two points (usually intersections). Only one of the roadways carries the data and the other roadway points to it. This is to avoid duplication of mileage.

**How to Gather this Data:** These characteristics are automatically generated when Feature 141 is coded.



Do not delete Feature 143 or any of its characteristics.

**RDWYID | COUNTY, SECTION, SUB-SECTION**  
**BEGSECPT | BEGIN SECTION MILEPOINT OF EXCEPTION**  
**ENDSECPT | END SECTION MILEPOINT OF EXCEPTION**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Central Planning, District Planning, Safety, Financial Management, District Office of Maintenance	Only when an exception occurs.	N/A	N/A

## FEATURE 146

### ACCESS MANAGEMENT

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	Yes	No	Length	Yes	Yes
Responsible Party for Data Collection		A representative from each district will gather, update, and input this data into RCI as needed.			

**Definition/Background:** A designation for each FDOT roadway. This classification reflects the desired access management standards to be followed in each classification. These are standards for restrictive medians, median opening separation, and driveway separation. The ranges are from 00-07 and 99. Code 01 is the highest amount of access management control (freeways) and code 07 is the lowest. Code 07 is usually found on suburban built-out corridors.

For further reference, please read *FAC Rule 14-97 Access Management Classification System and Standards*. This can be obtained from the District Systems Implementation Office. For further assistance, please contact Systems Implementation Office at (850) 414-4912.

See Assignment of Access Management Classifications to the SHS, Procedure Number Topic No. 525-030-155. This procedure gives guidance on RCI input as follows:

1. Once a classification or reclassification is final, the District Planning Office, or those delegated this task, will enter the Access Management Classification (ACMANCLS) into RCI. The codes are 00-07 and 99.
2. The District Planning Office, or the office designated by the District Secretary, will take no longer than 15 days on re-classifications to enter the data.
3. The District Planning Office, or the office designated by the District Secretary, should send the District connection application staff (usually in Maintenance) the most up-to-date information on the classifications within five working days of the final agency action.

#### ACMANCLS | ACCESS MANAGEMENT CLASSIFICATION

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		District Planning, Central Planning	All Active on System roads.	N/A	N/A

Codes	Descriptions
00	Class would not be applicable
01	Access Class 01
02	Access Class 02
03	Access Class 03
04	Access Class 04
05	Access Class 05
06	Access Class 06
07	Access Class 07
99	Special Corridor Access Management Plan

**Class 1**—Limited Access, i.e., interstate, Turnpike, Lee Roy Selmon, Suncoast Pkwy, Ingress and egress are only via interchanges.

**Class 2**—Has frontage roads or a system of interconnections making frequent driveways and median openings not needed.

**Class 3-6**—Has less strict spacing than class 2 due to multiple factors such as speed, strategic importance of roadway, and surrounding land uses.

**Class 7**—The least strict; usually found in older, densely developed strip suburban areas.

The following information is used to determine roadway access to the SHS network. This table is an excerpt from *Florida Administrative Code (FAC), Rule Chapter 14-97.003, Access Management Classification System and Standards*.





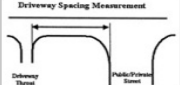
 <b>Access Management Spacing Standards from Rule 14-97</b>					
   					
CLASS	MEDIANS	MEDIAN OPENINGS		CONNECTION	
		FULL	DIRECTIONAL	MORE THAN 45MPH	45MPH OR LESS
2	Restrictive w/ Service Roads	2,640	1,320	1,320	660
3	Restrictive	2,640	1,320	660	440
4	Non-Restrictive			660	440
5	Restrictive	2,640 (More than 45MPH)	660	440	245
		1,320 (45MPH or Less)			
6	Non-Restrictive			440	245
7	Both	660	330	125	125

FIGURE 2

<u>CONTROLLED ACCESS FACILITIES</u>					
ACCESS CLASS	FACILITY DESIGN FEATURES	MINIMUM CONNECTION SPACING	MINIMUM MEDIAN OPENING SPACING	MINIMUM MEDIAN OPENING SPACING	MINIMUM SIGNAL SPACING
	(MEDIAN TREATMENT AND ACCESS ROADS)		DIRECTIONAL	FULL	
		(FEET)	(FEET)	(MILE)	(MILE)
2	Restrictive with Service Roads	1320/660	1320'	0.5	0.5
3	Restrictive	660/440	1320'	0.5	0.5
4	Non- Restrictive	660/440	N/A	N/A	0.5
5	Restrictive	440/245	660'	0.5/0.25	0.5/0.25
6	Non- Restrictive	440/245	N/A	N/A	0.25
7	Both	125	330'	0.125	0.25
(Greater than 45 MPH/ Less than or = 45 MPH)					

NOTE: \* Section 14-97.003 and 14-97.004, FAC, contain supplementary and more detailed instructions for the use of these standards.

14-97.003 Access Management  
Classification System  
and Standards

Page 10

**Access Class 1, Limited Access Highways.** Class 1 is the most restrictive. These highways do not provide direct property connections. Accessibility to highways in this class is provided by grade-separated interchanges. Interstate highways and the Turnpike are typical of this class. The interchange spacing standards, based on the area type the highway is passing through.

**Access Classes 2-7, General Description.** The ACMANCLS for controlled access highways (classes 2-7) are arranged from the most restrictive (class 2) to the least restrictive (class 7). Generally, the highways serving areas without existing extensive development or properties without subdivided frontages will be classified at the top of the range (classes 2, 3, and 4). Those roadways serving areas with existing moderate to extensive development or subdivided properties will generally be classified in the lower classes of the range (classes 5, 6, and 7). The standards for each class are further defined where the posted speed limit is greater than 45 mph or where the posted speed limit is 45 mph or less.

## FEATURE 147

### STRATEGIC INTERMODAL SYSTEM

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	Yes	Yes	Length	Yes	Yes
<b>Responsible Party for Data Collection</b>		Systems Implementation Office. For further assistance, please contact Systems Implementation Office at 850-414-4913.			

**Definition/Background:** Identifies highway facilities within the designated Strategic Intermodal System (SIS) corridors, and designated SIS or Strategic Growth roadway connectors. For more information on SIS Designation, including definitions and criteria, please contact the Systems Implementation Office or go to the SIS website at <https://www.fdot.gov/planning/sis/>.



#### SISFCTPX | SIS FACILITY TYPE LEVEL (X=1-9)

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Intermodal System Development, SIS Committee, sub-committees, and Central Planning, District Planning, Safety, Financial Management, District Office of Maintenance	All designated SIS Highway Corridors and SIS or Strategic Growth roadway connectors On or Off the SHS.	N/A	N/A

**How to gather this Data:** Enter the code value assigned to the route.

Grouping	Codes	Descriptions
Highway Facilities	11	Corridor
Highway Facilities	13	Corridor Future
Highway Facilities	14	Corridor Planned Drop
Connectors	21	Connector
Connectors	22	Connector Future
Connectors	23	Connector Planned Drop
Military Access	24	Military Access
Military Access	25	Military Access Future
Military Access	26	Military Access Planned Drop
Strategic Growth (SG) Connectors	27	SG Connector
Strategic Growth (SG) Connectors	28	SG Connector Future
Strategic Growth (SG) Connectors	29	SG Connector Planned Drop
Other	31	Link
Other	41	GIS Route
Other	51	Managed/Express/Reversible



## SISMPIDX | SIS FACILITY MAP ID LEVEL (X=1-9)

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Intermodal System Development, SIS Committee and sub-committees	All designated SIS Highway Corridors and SIS or Strategic Growth roadway connectors On or Off the SHS.	N/A	N/A

**Definition/Background:** Associates a map ID with a highway facility within the designated SIS.

**How to Gather this Data:** Enter the ID value assigned to the facility.

**Code:** 6 Bytes: XXXXXX—Record the 6-digit sequence number assigned by the SIS Designation Committee

## Physical Features

These features are physical elements visible along the travelway.

### FEATURE 212

#### THROUGH LANES

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C/R/L	Yes	Yes	Length	Yes	Yes
Responsible Party for Data Collection		District Planning			

**Definition/Background:** The total number of through lanes for the roadway side, (C/R/L). A through traffic lane is a lane of roadway intended to facilitate moving vehicles along a corridor.

#### NOLANES | NUMBER OF ROADWAY LANES

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
7		Planning, Maintenance, Work Program, Traffic Operations, HPMS	All functionally classified roadways On or Off the SHS, and Active Exclusive roadways.	N/A	N/A

**How to Gather this Data:** Count the number of through lanes excluding auxiliary lanes, parking lanes, or acceleration and deceleration lanes. For a divided roadway, there will be two values, one for the left roadway side and one for the right roadway side. For a composite roadway side, there will be one value.

The following are not considered through lanes:

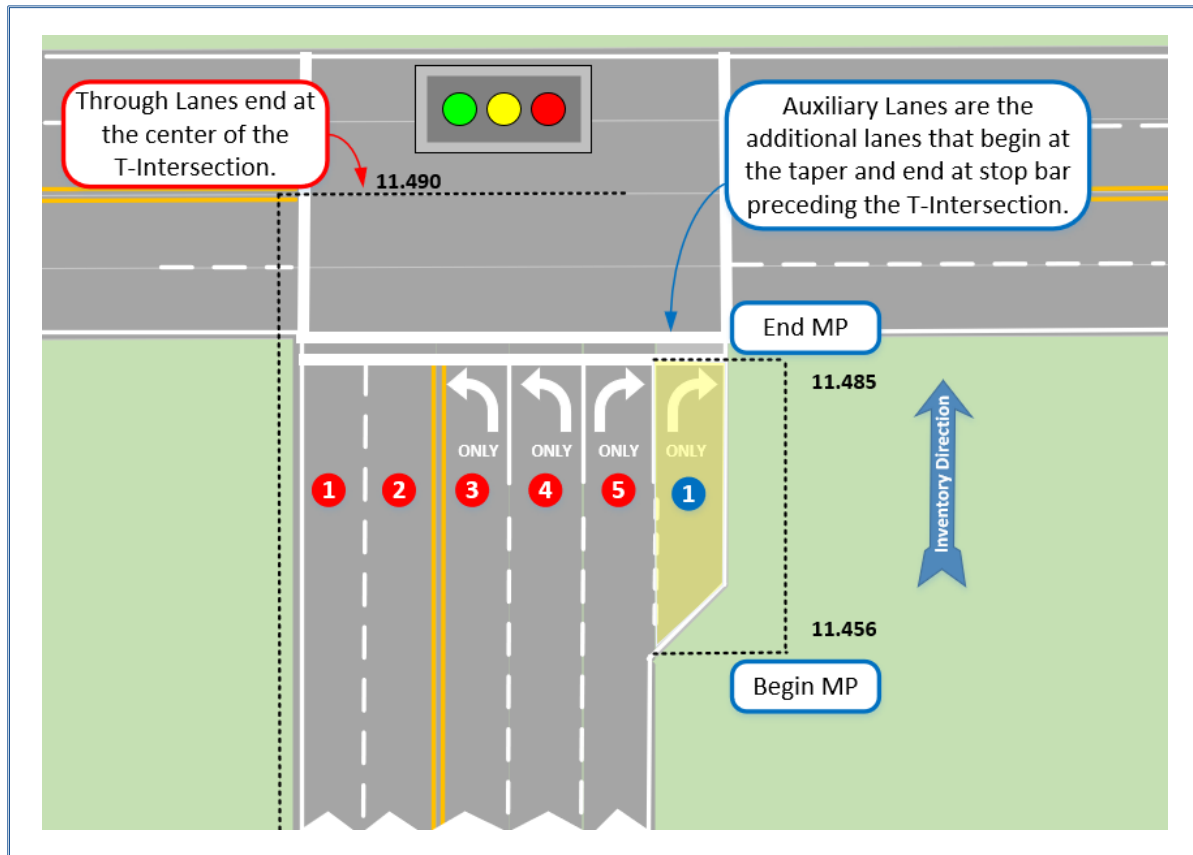
- Parking lanes are coded as a paved shoulder under Feature 214 Outside Shoulders. Parking lane width and type of parking are coded under Feature 313 Parking.
- Bike lanes (excluding Sharrows) and Keyhole Lanes are coded as paved shoulders under Feature 214 Outside Shoulders. All bike lanes and Keyhole Lanes are coded under Feature 216 Bike Lanes/Pedestrian Facilities.

**Value for Number of Roadway Lanes:** 2 Bytes: XX—Number of through lanes (e.g., 02)

#### Special Situations:

- *T-Intersection:* Code the number of through lanes to the center of the intersection. Then code the auxiliary lanes under Feature 213 by counting those lanes not previously counted. Be careful to avoid duplicate or over counting. For more details, reference Feature 213 Special Situations for coding T-Intersections.

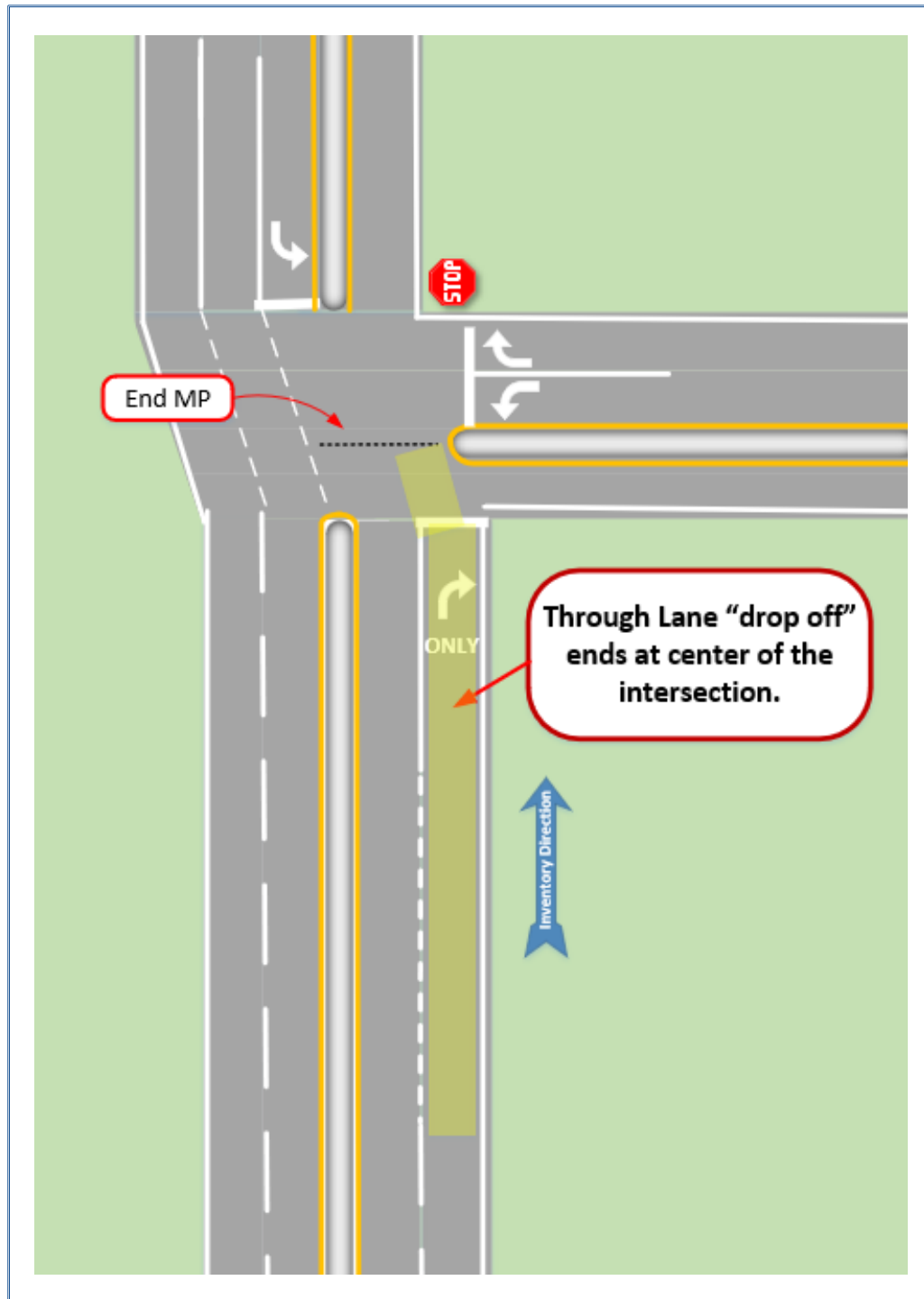
## EXAMPLE



Through lanes that terminate at a t-intersection are coded to the center of the intersection. Note that this is a different ending milepoint than that of the auxiliary lane that approaches the intersection.

*Through Lane Drop off:* This is a through lane that becomes a right turn or left turn only at an intersection. Code a dropped lane as a through lane to the center of the intersection.

## EXAMPLE



A Through Lane approaching an intersection that is designated for turning movements only at an intersection is a Through Lane Drop Off. It does not continue beyond the intersection, the lane is considered “dropped” at the center of the intersection.

In comparison, an auxiliary lane at an intersection has three key components: entering taper, deceleration length, and storage length.

## SURWIDTH | PAVEMENT SURFACE WIDTH

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
34		Planning, Maintenance, Work Program, Traffic Operations, HPMS	All functionally classified roadways On or Off the SHS, and Active Exclusive roadways.	N/A	N/A

**Definition/Background:** The total width of all through lanes for the roadway side (C/R/L), measured in feet.

**Tolerance:** Measured to the nearest foot.

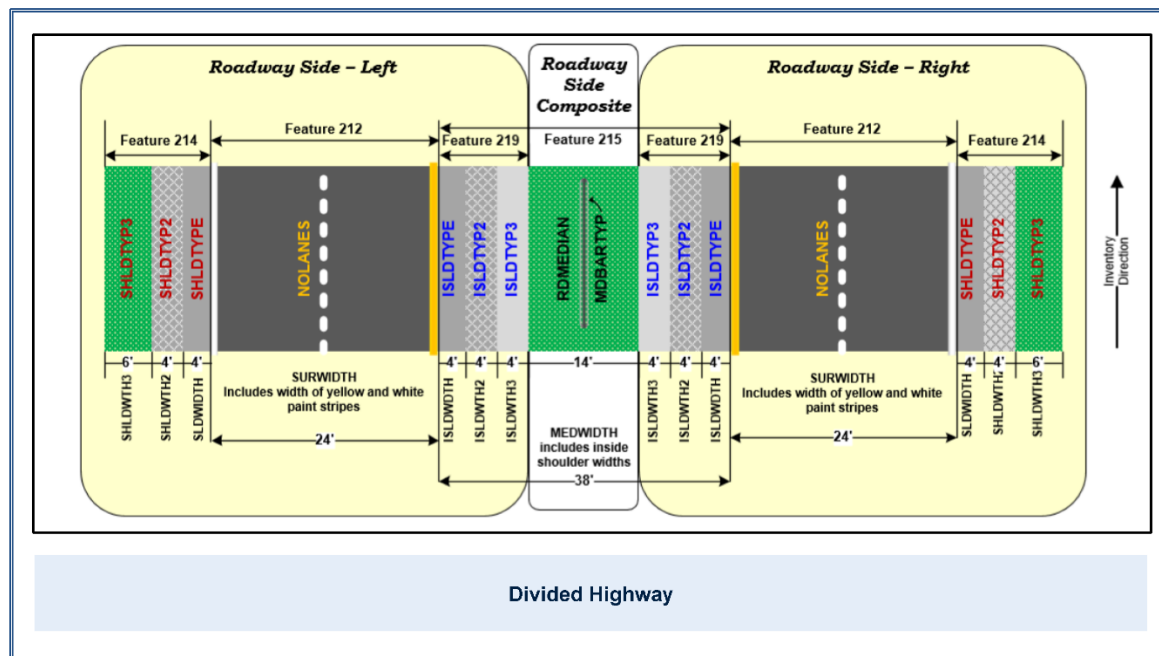
**How to Gather this Data:** Measure the total lane surface width to the nearest whole foot. Measure from the outside paint stripe edge to the outside paint stripe edge. Do not include auxiliary lanes, parking lanes, or acceleration and deceleration lanes.



**Value for Pavement Surface Width:** 3 Bytes: XXX—Surface width in feet

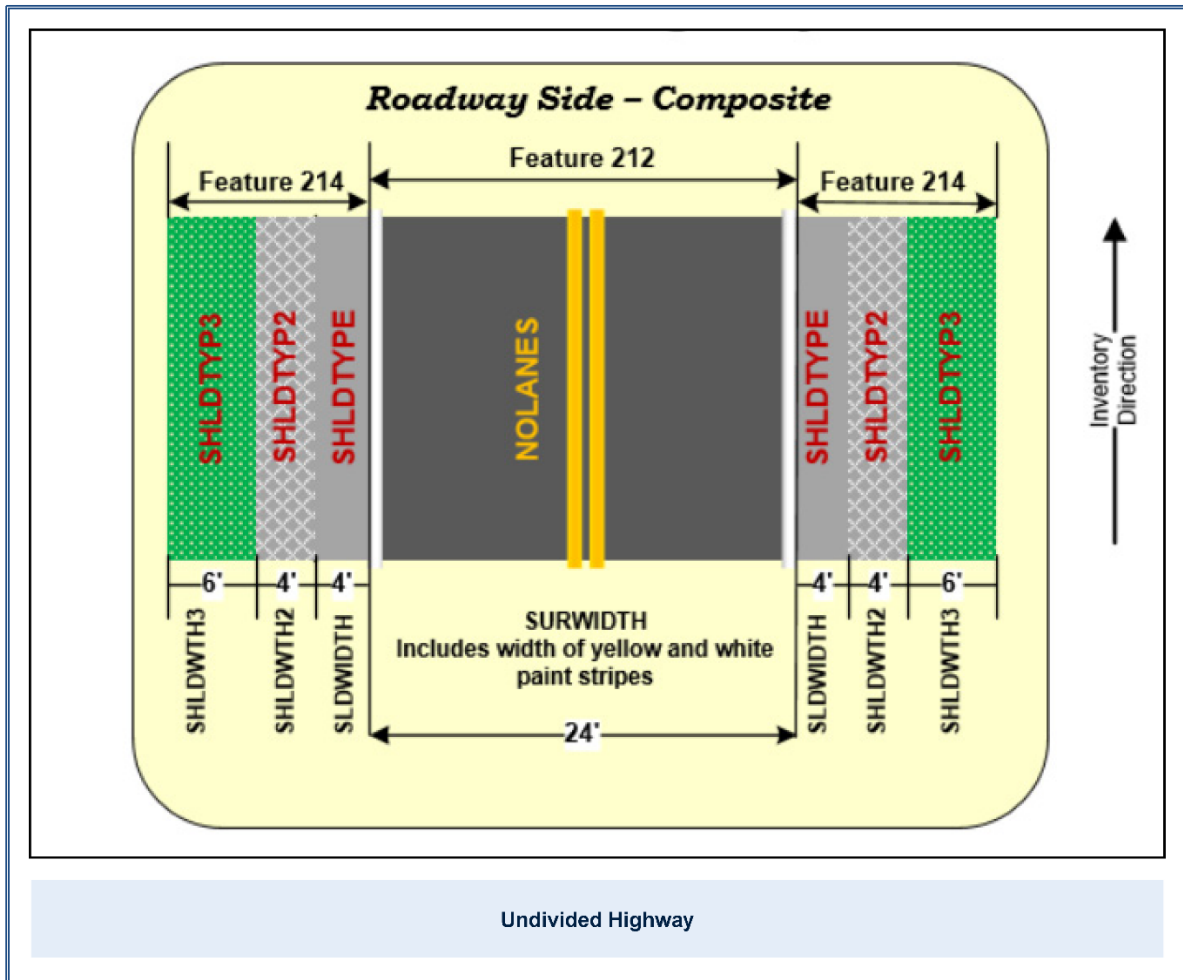
**Special Situations:** Divided roadway—Take measurement from the outside edge of the yellow stripe to the outside edge of the white stripe. For a divided roadway, there will be two values, one for the left roadway side and one for the right roadway side. These can be up to 24 feet for a single individual through lane.

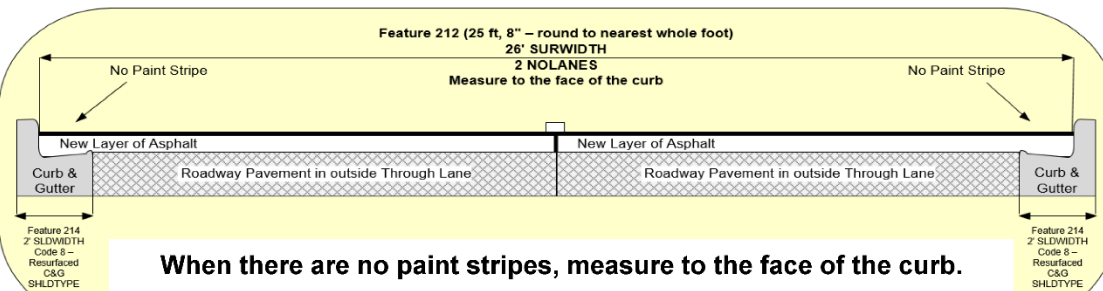
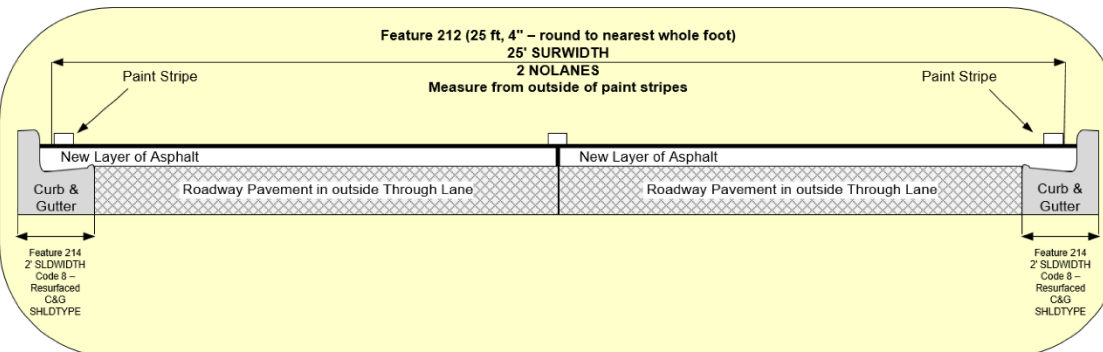
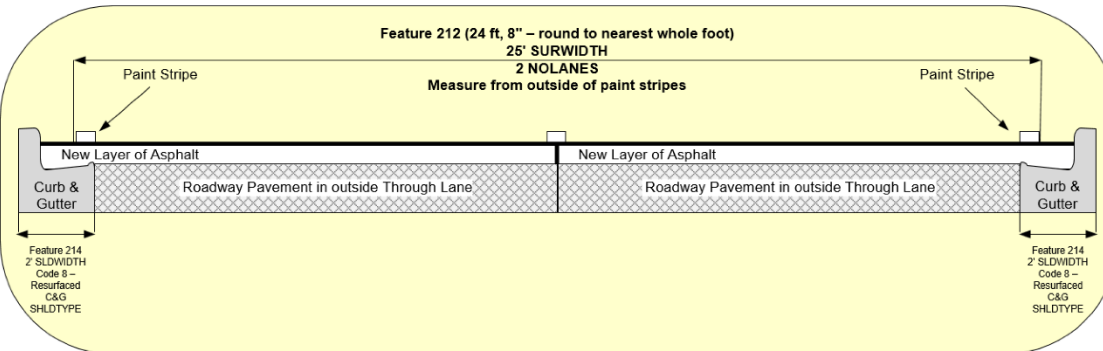
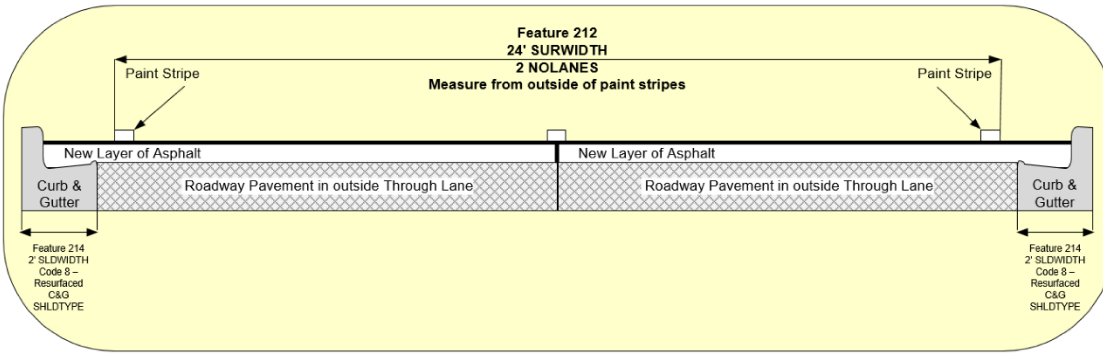
## EXAMPLES



*Note:* SHLDTYPE, SHLDTYPE2 and SHLDTYPE3 under Feature 214—Outside shoulders require coding an Offset to indicate Left or Right.

When there are paint stripes present, measure the through lanes from the outside of the paint stripe.





## FEATURE 213

### AUXILIARY LANES

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
R/L	Yes	No	Length	Yes	Yes
<b>Responsible Party for Data Collection</b>		District Planning & Maintenance			

**Definition/Background:** Auxiliary lanes are lanes adjacent to Feature 212 Through Lanes that provide turning movements, exclusive vehicle lane usage, and identify where speed changes are required. Effective June 2017.

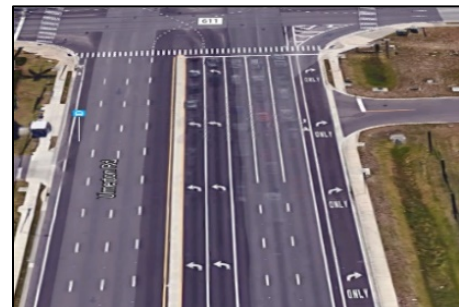
At an intersection, an auxiliary lane does not exist where a through lane continuing to the intersection only allows for turning movement. That is a through lane drop off. See Feature 212—Through Lanes for instructions and example for coding those situations.

*Feature 213 Auxiliary Lanes cannot be coded “C” composite.* The right and left sides must be coded separately for auxiliary lanes.

#### AUXLNTYP | AUXILIARY LANE TYPE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		Planning, Maintenance, Work Program, Traffic Operations, HPMS	All functionally classified roadways On or Off the SHS, and Active Exclusive roadways.	N/A	N/A

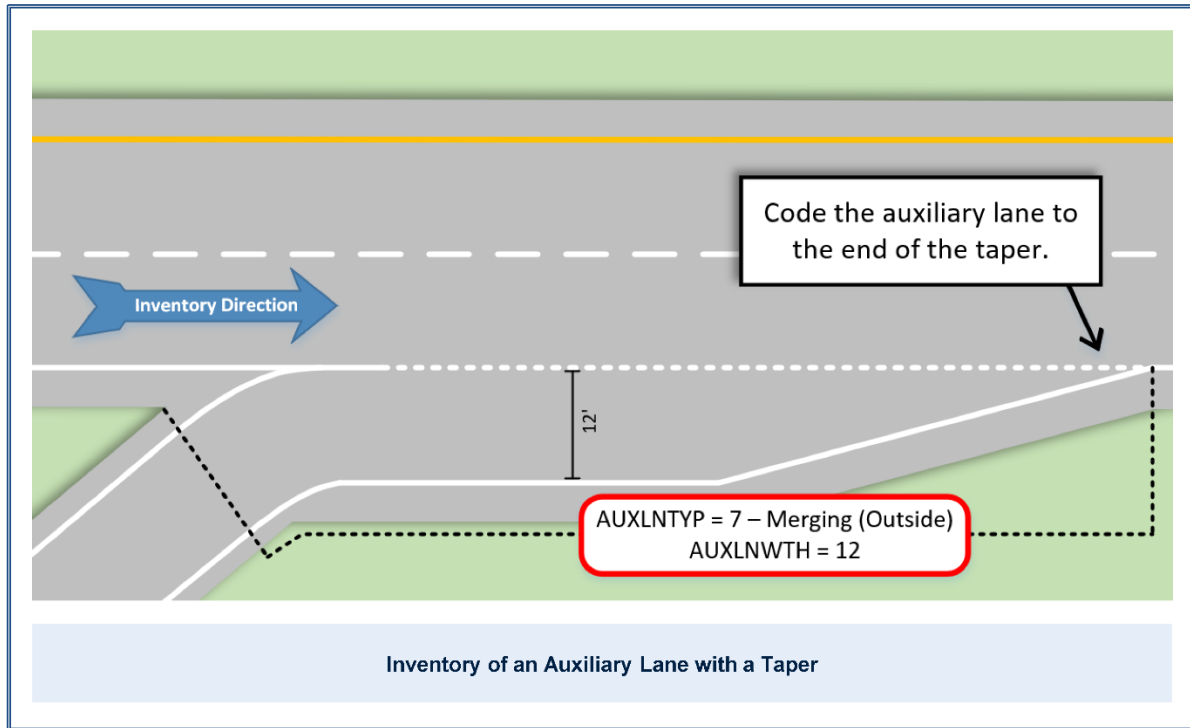
**How to Gather this Data:** At typical intersections, auxiliary lanes provide vehicle storage for turning movements. Code auxiliary lanes under Feature 213 for each side of the roadway and the number of through lanes under Feature 212. When determining the type of lanes, consider the number of through lanes first before auxiliary lanes. The through lanes will carry the majority of the traffic volume. The sum of the through lanes and auxiliary lanes are the total lanes present.



Measurements start or end at the taper, physical gore, or stop bar.

For merge lanes that do not begin at an intersection, measurements start at the pavement marking or at the change in striping (use the first indication). The posted sign may be used if the former are not present. The length of auxiliary lanes will include the taper if any is present. Regardless of whether the auxiliary lane is merging outside or inside, inventory the width of the lane from the edge of the yellow stripe lane separator at the intersection to the taper merging with the through travel lane.





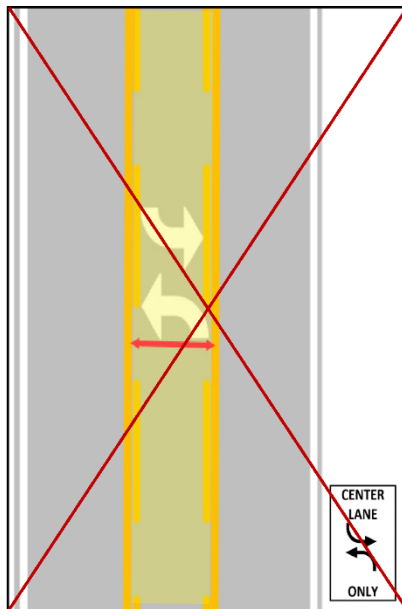
Codes	Descriptions	Additional Information and Guidance
1	Continuous Left Turn Lane <b>Obsolete</b>	Added December 2017; <b>Obsolete</b> September 2019—see Feature 215—RDMEDIAN.
2	Continuous Right Turn Lane	Inventory the turn lane from the beginning of the taper to the stop bar, or its approximate intended location when missing. If there is any break within the turn lane that forces the vehicle to make a right turn, such as cross hatching, stop bars, or positive barriers, stop the aux lane at that location, and begin a new aux lane on the other side of the break (if needed). This type of turn lane extends beyond a single intersection or driveway. Added December 2017.
3	Left Turn Lane	Inventory turn lanes from the beginning of the taper to the stop bar, or its approximate intended location when missing. This includes turn lanes that may or may not be a part of a paved, two-way, or physical median.
4	Right Turn Lane	Inventory turn lanes from the beginning of the taper to the stop bar, or its approximate intended location when missing.
5	Bus Preference Lane	Inventory the bus pull in/out within a designated transit stop from the beginning of the taper to the end of the next taper, stop bar, or approximate intended location when missing.
6	Merging Inside Lane	Inventory the lane from the end of the white stripe (lane separator) at the intersection to the taper merging with the through lane (from inside lane/inside shoulder). For merge lanes that do not begin at an intersection, inventory from the pavement marking or at the change in striping (use the first indication). The posted sign may be used if the former are not present.

Codes	Descriptions	Additional Information and Guidance
7	Merging Outside Lane	Inventory the lane from the end of the white stripe (lane separator) at the intersection to the taper merging with the through lane (from outside lane/outside shoulder). For merge lanes that do not begin at an intersection, inventory from the pavement marking or at the change in striping (use the first indication). The posted sign may be used if the former are not present.
8	Turn Lane with Bike Slot <b>Obsolete</b>	<b>Obsoleted</b> May 2014—use code 4.
9	Special Enforcement Lane	Inventory the special enforcement lane from the beginning of the taper to the end of the next taper, stop bar, or approximate intended location when missing.

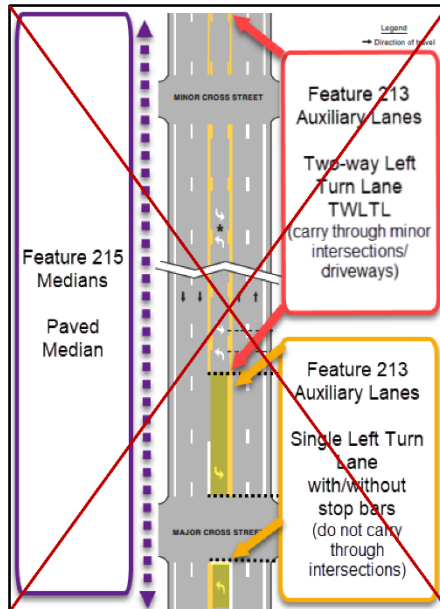
**Special Situations:**

- For auxiliary lanes on one-way roadways, always code the roadway side as right. Code Left turn lanes as Code 3 and Right turn lanes as Code 4, on roadway side right.
- For through lane drop offs, do not code as Left turn lanes or Right turn lanes. These are coded as through lanes that extend to the center of the associated intersection.
- For DDI crossover areas, the inventory direction is on the left side of the roadway. The road side of auxiliary lanes as defined approaching and leaving the crossover area is reversed within the crossover area.

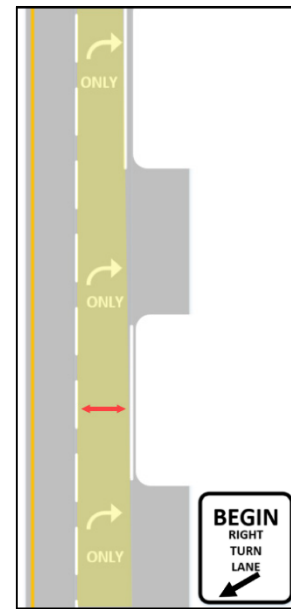
## EXAMPLES



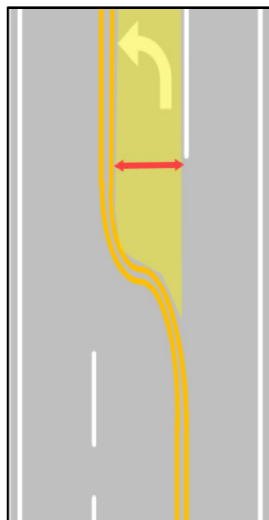
1: Two-way Left Turn Lane  
(**Obsolete** September 2019)



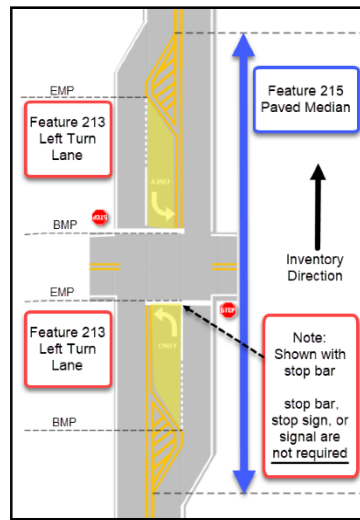
1: Two-way Left Turn Lane  
(**Obsolete** September 2019)



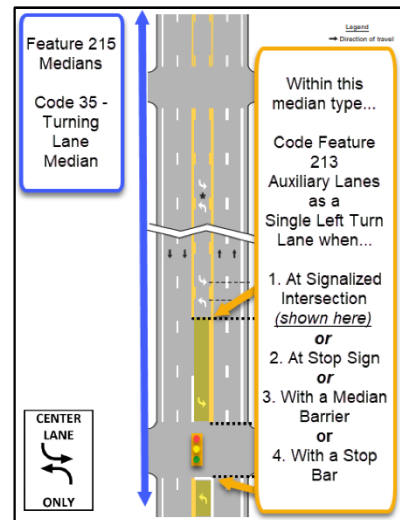
2: Continuous Right Turn Lane



3: Left Turn Lane  
(within Feature 215—  
Paved Median)

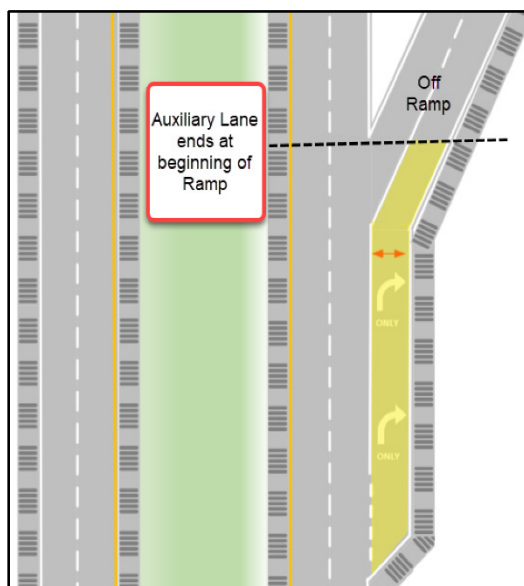


3: Left Turn Lane (within  
Feature 215—Paved Median)  
with stop bar, stop sign, or  
stop signal (not shown)

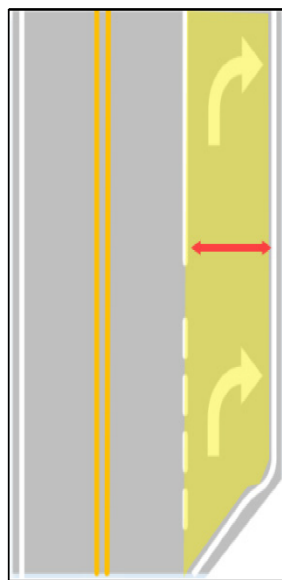


3: Left Turn Lane (within Feature  
215—Two-way Turn Median) with  
stop bar, stop signal, stop sign  
(not shown), or median barrier  
(not shown)

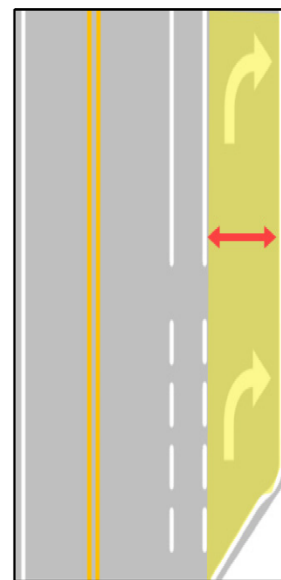
## EXAMPLES



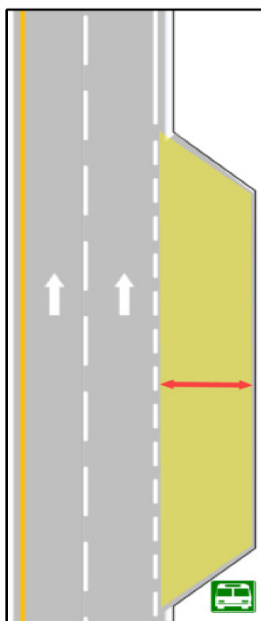
4: Right Turn Lane (prior to ramp)



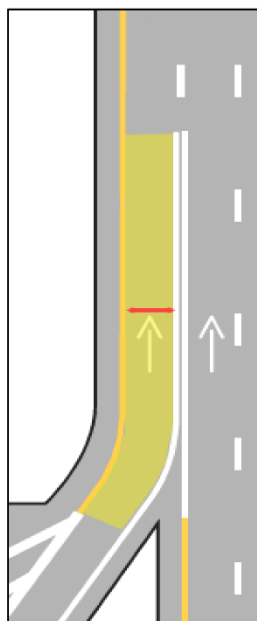
4: Right Turn Lane



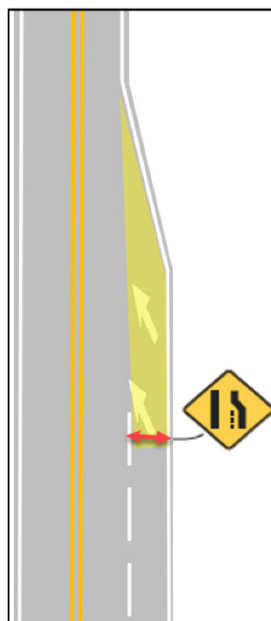
4: Right Turn Lane  
adjacent to  
Bicycle Keyhole Lane



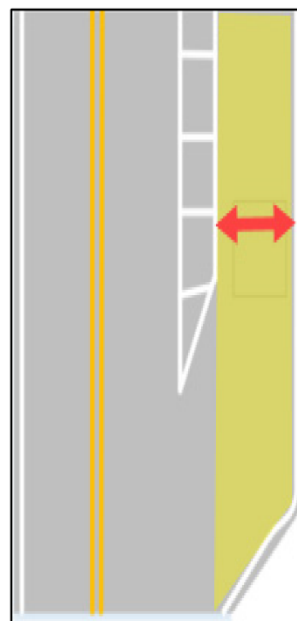
5: Bus Preference  
Lane



6: Merging Inside  
Lane



7: Merging Outside  
Lane



9: Special Enforcement  
Lane

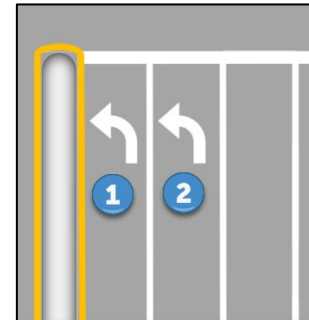
## AUXLNUM | NUMBER OF AUXILIARY LANES

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		Planning, Maintenance, Work Program, Traffic Operations, HPMS	All functionally classified roadways On or Off the SHS, Active Exclusive roadways and NHS.	N/A	N/A

**Definition/Background:** The total number of auxiliary lanes adjacent to the roadway for the roadway side (R/L).

**How to Gather this Data:** Count the number of auxiliary lanes adjacent to the through lanes. Do not include through lanes.

**Value for Number of Auxiliary Lanes:** 1 Byte: X—Total number of auxiliary lanes adjacent to the roadway.



## AUXLNWTH | AVERAGE AUXILIARY LANE WIDTH

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		Planning, Maintenance, Work Program, Traffic Operations, HPMS	All functionally classified roadways On or Off the SHS, Active Exclusive roadways, and NHS.	N/A	N/A

**Definition/Background:** Denotes the average width of each auxiliary lane.

**Tolerance:** Measured to the nearest 0.5 ft.

**How to Gather this Data:** Measure the width of auxiliary lane(s). The width is measured from the inside edge of lane stripe to inside edge of yellow stripe. If there is only one auxiliary lane, record the measurement. If there are multiple auxiliary lanes, sum the width of adjacent auxiliary lanes, and divide by the total number of lanes. Refer to the graphic below.

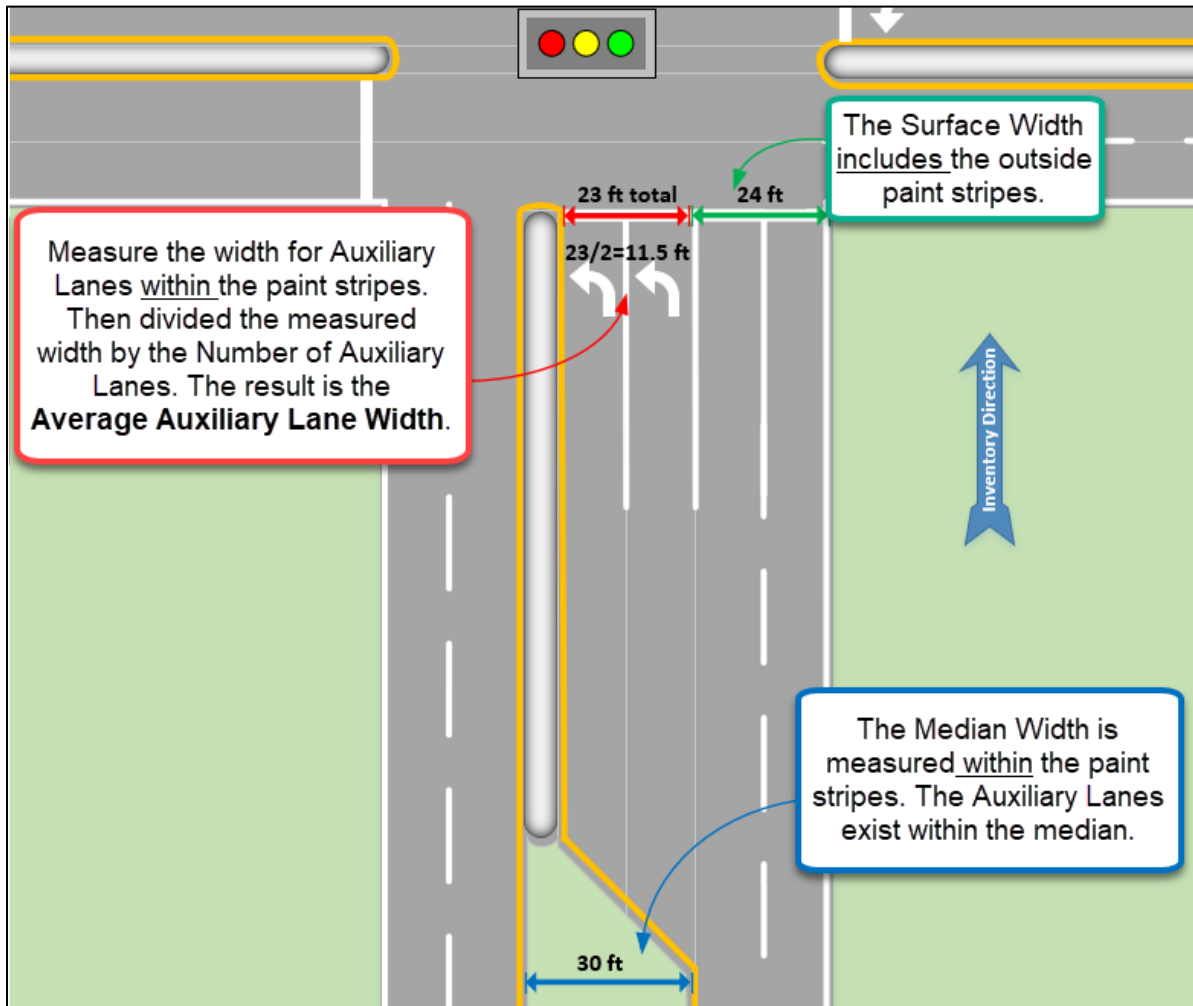
Measurements are taken as follows:

- At intersections, measure the auxiliary lanes at the stop bar.
- For a mid-block turn lane that has the stop bar perpendicular to the roadway, measure the auxiliary lane where it parallels the through lanes.
- Adjacent to ramps, measure at the widest point along the lane.

**Value for Average Auxiliary Lane Width:** 3 Bytes: XX.X—Average width of auxiliary lane(s)

**Calculation for the Average Lane Width:**

$$\begin{aligned} &(\text{Measured Width} / \text{Quantity} = \text{AUXLNWTH}) \\ &23 \text{ feet} / 2 \text{ Lanes} = 11.5 \text{ feet} \end{aligned}$$



**Special Situations:**

**INVENTORYING ROADWAYS WITH LEFT AND RIGHT TURN LANES THAT BEGIN AND END AT SAME MILEPOINTS AND ON THE SAME INVENTORY DIRECTION OF THE ROADWAY**

**Feature 213—Auxiliary Lanes**  
(Roadway Side = R/right side)

**As inventoried**

*Turn Left = 1 at 12 ft wide*

BMP = 7.250

EMP = 7.280

*Turn Right = 1 at 12 ft wide*

BMP = 7.250

EMP = 7.280

Both turn lanes are at the same milepoints and one must change to make it a unique entry.

**As recorded in database**

*Turn Left = no changes from above*

*Turn Right = 1 at 12 ft wide*

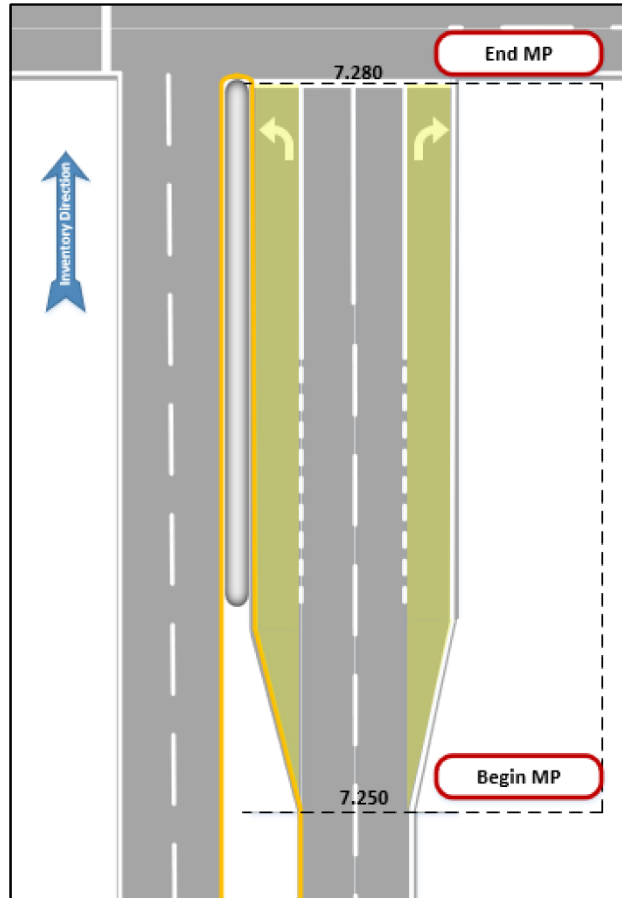
BMP = 7.250 7.251

EMP = 7.280

**Feature 213—Number of Auxiliary Lanes**  
(Roadway Side = L/left side)

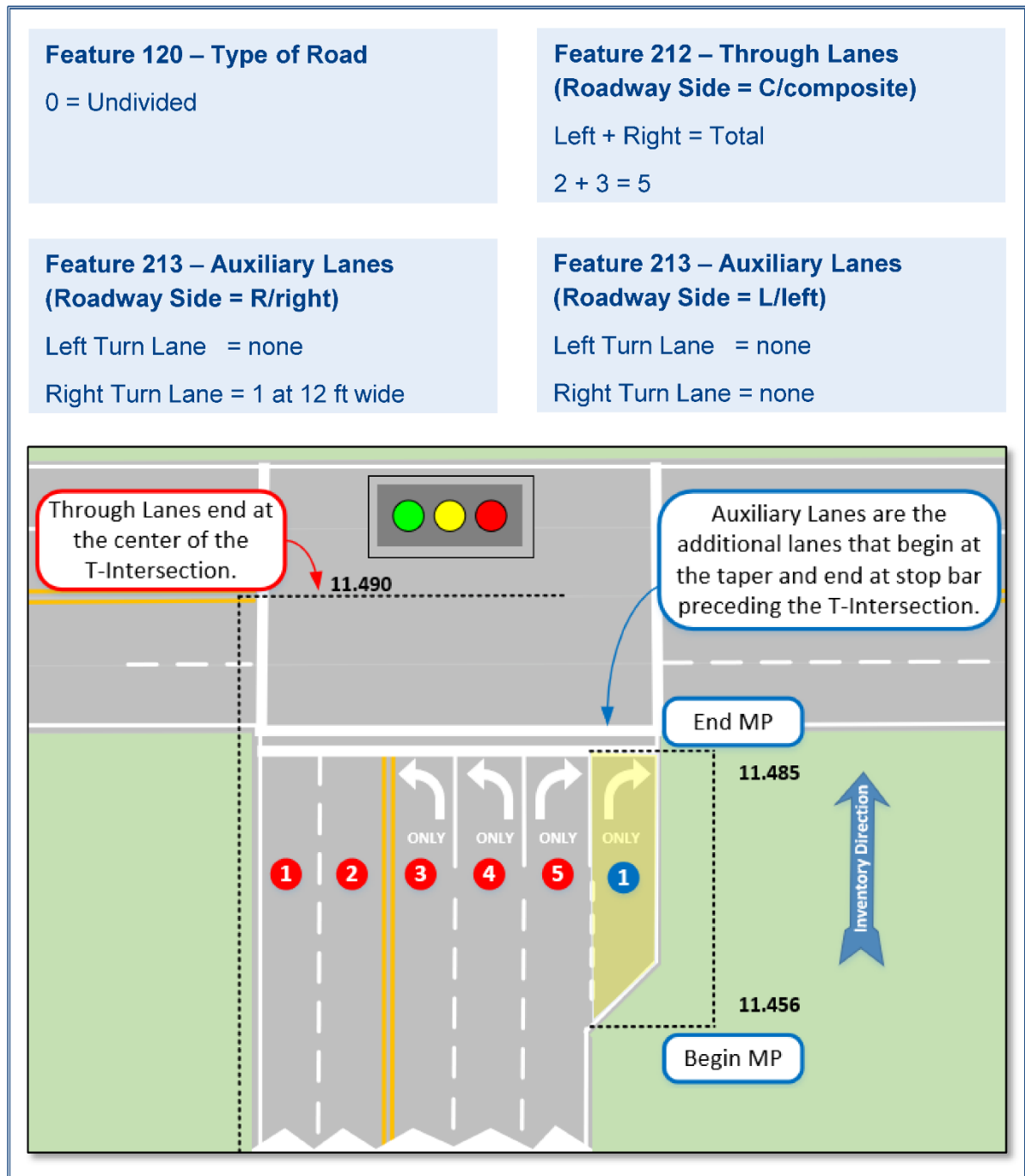
*Turn Left = none*

*Turn Right = none*



When both left and right turn lanes begin and end at the same milepoints then one of the auxiliary lanes is offset at the beginning milepoint by 0.001. The example above shows the Right Turn Lane being offset.

**INVENTORYING ROADWAYS WITH LEFT AND RIGHT TURN LANES THAT BEGIN AND END AT SAME MILEPOINTS AND ON THE SAME INVENTORY DIRECTION OF THE ROADWAY**



Through Lanes and Turn Lanes that occur at a “T-Intersection” are treated as shown in this example.

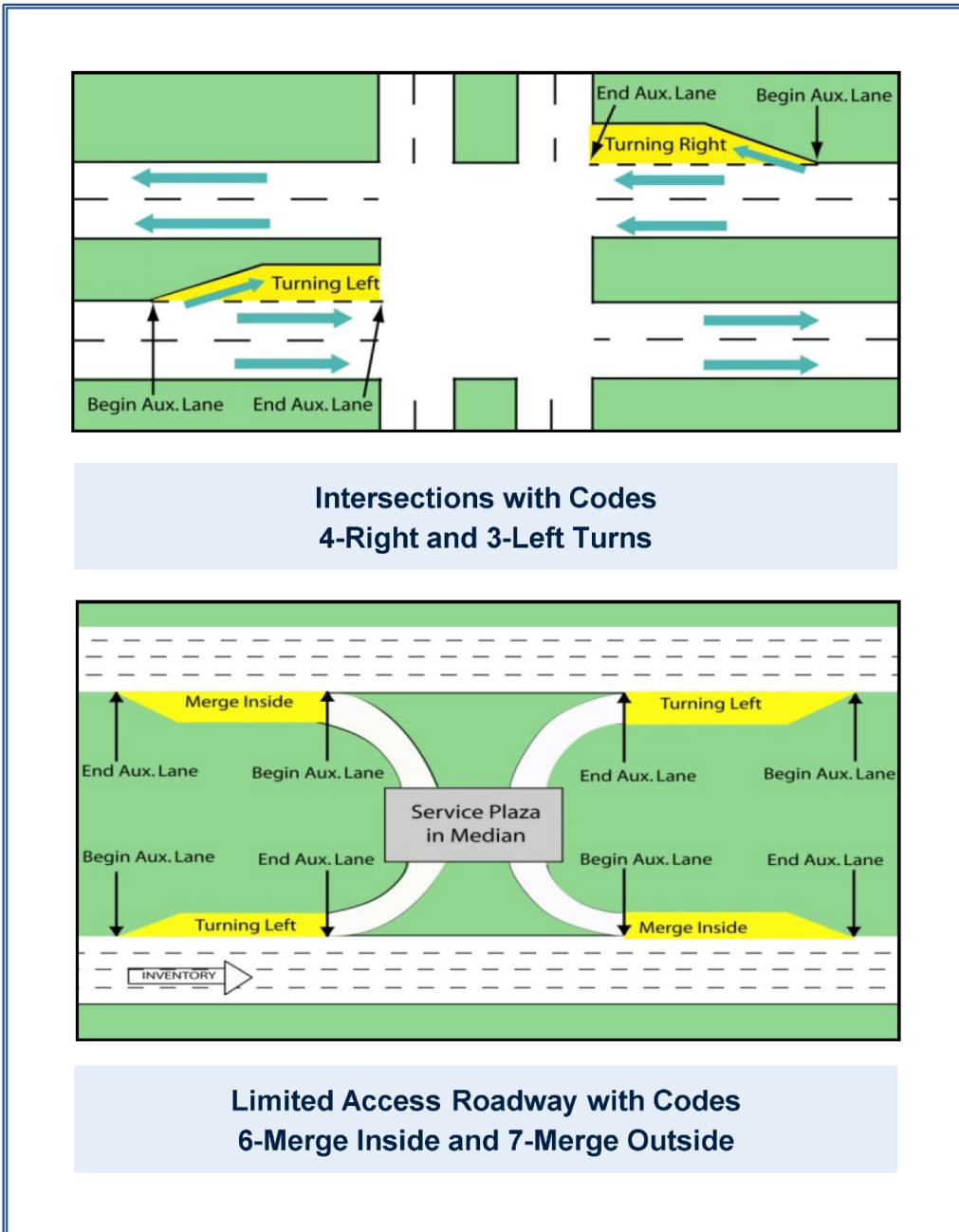
- Through Lanes end at the center of the intersection.
  - On the left, there are two through lanes (Red No. 1 & 2).



- On the right, there are three through lane drop offs (Red No. 3, 4, & 5). The through lanes are present before the auxiliary lane begins. These are not considered auxiliary lanes even though there are painted arrows indicating the turning movement.
- On the right, the auxiliary lane (Blue No. 1) is a right turn lane that begins at the taper and ends at the stop bar.

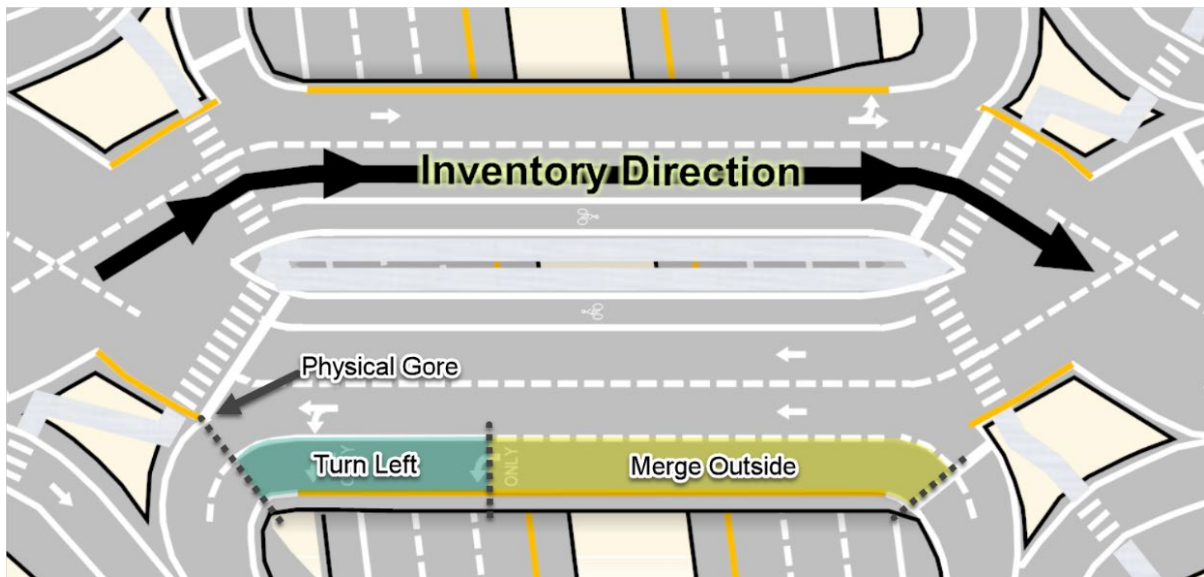
The total lane count must not exceed the sum of through lanes plus auxiliary lanes.

## TURN LANES/MERGING LANES WITH TAPERS



The beginning and ending locations for these auxiliary lanes are shown in the drawings above.

## INVENTORYING AUXILIARY LANES AT A DDI CROSSOVER AREA



In this example, the merging lane on the non-inventory side of the roadway (indicated in yellow) begins at the stop bar and ends the solid white line. This lane is coded as Roadside = R, 7—Merging (from outside lane/shoulder). The left turn lane (indicated in green) begins at the start of the solid white line and ends at the physical gore that defines the beginning of the ramp.

## FEATURE 214

### OUTSIDE SHOULDERS

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C/R/L	Yes	Yes	Length	No	Yes
Responsible Party for Data Collection		District Planning			

**Definition/Background:** The outside shoulders are used for lateral support of the roadway.

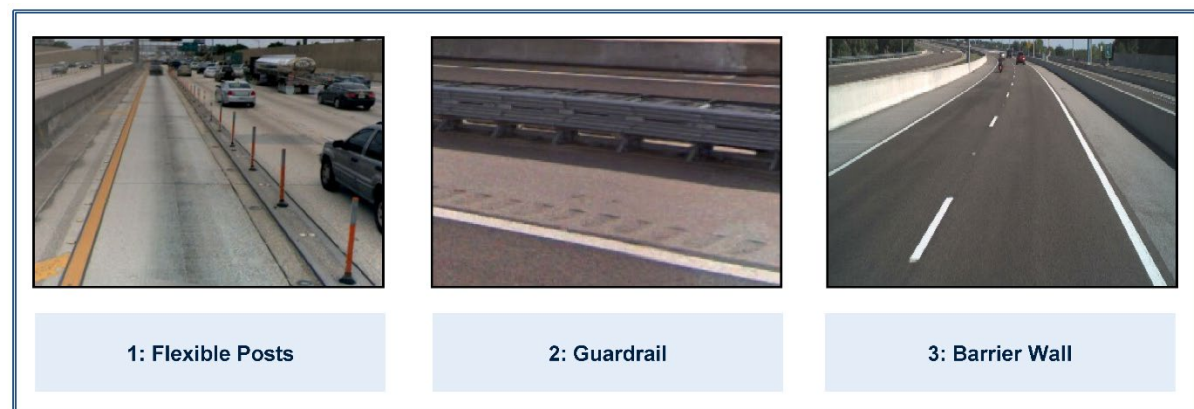
### MLTRFSEP | MANAGED LANE SEPARATOR

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
37		Planning, Maintenance, Work Program, Traffic Operations, HPMS	All managed lanes.	2-right 3-left	N/A

**How to Gather this Data:** Record the type of separator between the managed lane and mainline through lane(s) in the same direction.

Codes	Descriptions
0	None
1	Flexible Posts
2	Guardrail
3	Barrier Wall
4	Vegetation (Effective 9/2018)

### EXAMPLES



**SHLDTYPE | HIGHWAY SHOULDER TYPE**  
**SHLDTYPX | HIGHWAY SHOULDER TYPE (X=2,3)**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
37		Planning, Maintenance, Work Program, Traffic Operations, HPMS	All functionally classified roadways on the SHS, all HPMS standard samples off the SHS, Active Exclusive roadways, all SIS related roadways, and all managed lanes.	1-right & left 2-right 3-left	N/A

**Definition/Background:** Denotes type of outside shoulder located adjacent to the outside travel lane. Outside shoulders provide for the accommodation of stopped vehicles, emergency use, and lateral support of the roadbed. SHLDTYPE is the shoulder adjacent to the roadway centerline. The intent is to code outside shoulder, not the right-of-way.

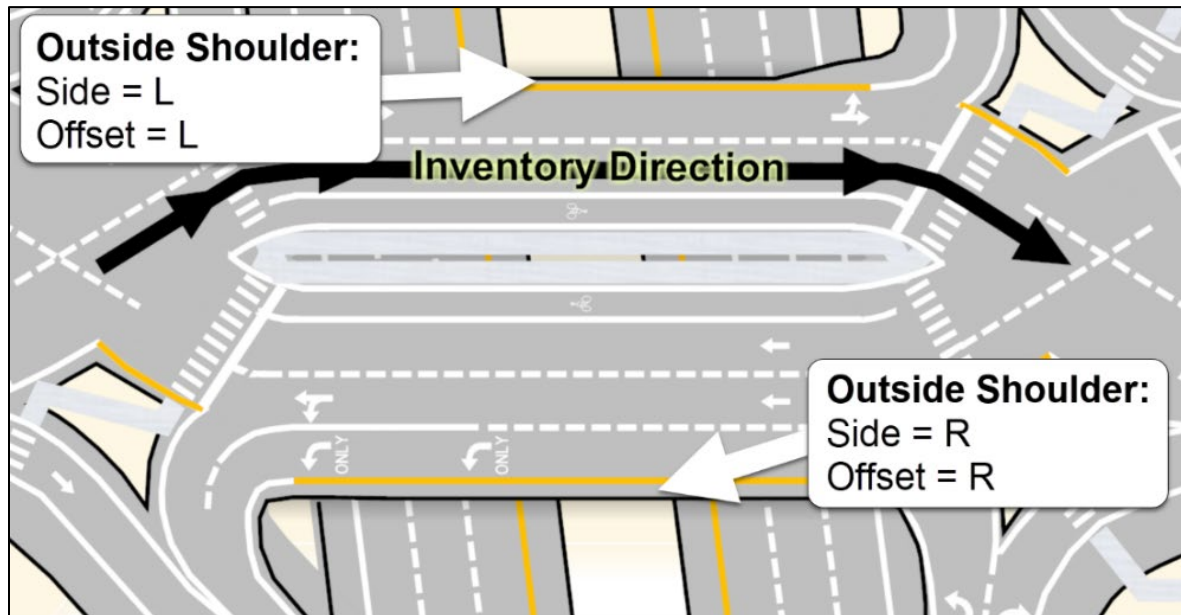
**How to Gather this Data:** Record the highway shoulder type starting with the first shoulder adjacent to the outside travel lane. Collect information for up to three types of shoulders (SHLDTYPE, SHLDTYP2, and SHLDTYP3). Each shoulder type is independently measured. A lawn shoulder type should only be measured up to 12' in width. Do not record shoulder types less than 1 foot in width.

**Special Situations:** No additional shoulder type is required if the first shoulder type is curb & gutter or a raised curb. Also, no additional shoulder type is required after any physical barriers, i.e., guardrails, barrier walls, or noise walls. These are inventoried by the Office of Maintenance.

For designated bike lanes, also code Feature 216. For bike keyhole lanes, the bike lane is adjacent to a turning lane.

Within a DDI crossover area (between the two crossover intersections), the road side of the inside and outside shoulders as defined approaching and leaving the crossover area is reversed. In other words: within the crossover area, the outside shoulder is the shoulder to the left of the direction of travel.


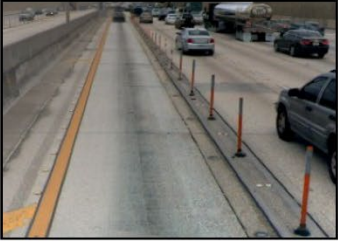
## OUTSIDE SHOULDERS AT A DDI CROSSOVER AREA



*Note: Within the crossover area at a diverging diamond interchange, the outside shoulder on the inventory side of the roadway is coded as Side = L, and the outside shoulder on the opposite side is coded as Side = R.*

Codes	Descriptions	Additional Information
0	Raised Curb	No shoulder width should be coded.
1	Paved	This including paved parking and bicycle lanes.
2	Paved with Warning Device	Any device that serves to warn drivers.
3	Lawn	Maximum of 12 feet.
4	Gravel/Grass	Maximum of 12 feet.
5	Valley Gutter	This is not a barrier.
6	Curb & Gutter	
7	Other	This may include Managed Lane.
8	Curb with Resurfaced Gutter	
9	None	No shoulder or width exists.

## EXAMPLES

		
<p><b>0: Raised Curb (no shoulder width should be coded)</b></p>	<p><b>1: Paved</b></p>	
		
<p><b>2: Paved with Warning Device</b></p>		
		
<p><b>3: Lawn</b></p>	<p><b>4: Gravel/Marl</b></p>	<p><b>5: Valley Gutter</b></p>
		
<p><b>6: Curb &amp; Gutter</b></p>	<p><b>8: Curb with Resurfaced Gutter</b></p>	<p><b>9: None (Managed Lane)</b></p>

*Note: Arrows depict where measurements are taken.*



## SLDWIDTH | HIGHWAY SHOULDER WIDTH SHLDWTHX | HIGHWAY SHOULDER WIDTH (X=2,3)

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
38		Planning, Maintenance, Work Program, Traffic Operations, HPMS	All functionally classified roadways on the SHS, all HPMS standard samples off the SHS, Active Exclusive roadways, all SIS related roadways, and all managed lanes.	1-right & left 2-right 3-left	N/A

**Definition/Background:** Width of either SHLDTYP, SHLDTYP2, or SHLDTYP3. Should be separately entered for each shoulder type.

**Cross-Reference/Tolerance:** Dimensional Accuracy: 1 foot

### How to Gather this Data:

- Record shoulders that are 1 foot or greater.
- Measurements should be rounded to the nearest 6 inches, excluding lawn shoulders.<sup>1</sup>
- Lawn shoulders should be measured in increments of 1 foot, up to 12 feet.<sup>2</sup>

<sup>1</sup> Measure widths of shoulders that are 1 foot wide or wider and code to the nearest 6-inch accuracy.

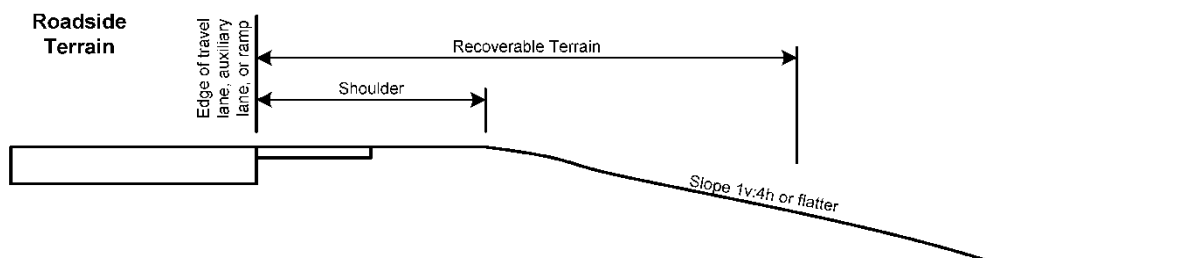
<sup>2</sup> Lawn shoulder type should be rounded to the nearest foot accuracy.

Lawn shoulder type should only be collected to a maximum of 12 feet, if it is safely traversable and on a slope that is 1v:4h or flatter. All other shoulder types are to be collected according to their physical attributes. See the roadside terrain diagram below.

Paved shoulders that are 1 foot or less are not considered shoulders, because they are incidental since they exist primarily due to the necessary spacing required for the 1-foot width of the wheel of the striping equipment. Shoulders are required to be at least 1 foot wide or wider before they are collected.

**Value for Shoulder Width:** 3 Bytes: XX.X—Record number of feet. Enter to nearest 6 inches (0.5 feet)

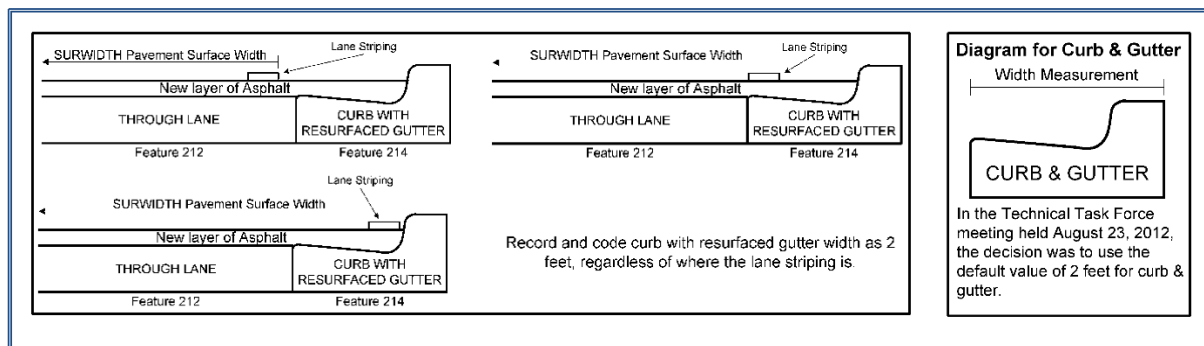
**Special Situations:** If the shoulder slopes, i.e., a ditch exists, extend the measuring tape horizontally until it is over the end of the slope and then take the measurement.



For paved shoulders, include the width of the designated bike lane in the shoulder width. Code curb with resurfaced gutter width as 2 feet regardless of where the lane striping is.

Reference the diagram on outside shoulder width for more information.

## EXAMPLE





## FEATURE 215

### MEDIANS

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	Yes	Yes	Length	Yes	Yes
Responsible Party for Data Collection		District Planning			

**Definition/Background:** Denotes type of medians and median barriers on divided highways.

### MDBARTYP | TYPE OF MEDIAN BARRIER

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
35		Planning, Maintenance, Work Program, Traffic Operations, HPMS	All functionally classified roadways on the SHS, all HPMS standard samples off the SHS, Active Exclusive roadways, all SIS related roadways, and all managed lanes.	N/A	N/A

**Definition/Background:** Denotes type of median barrier.

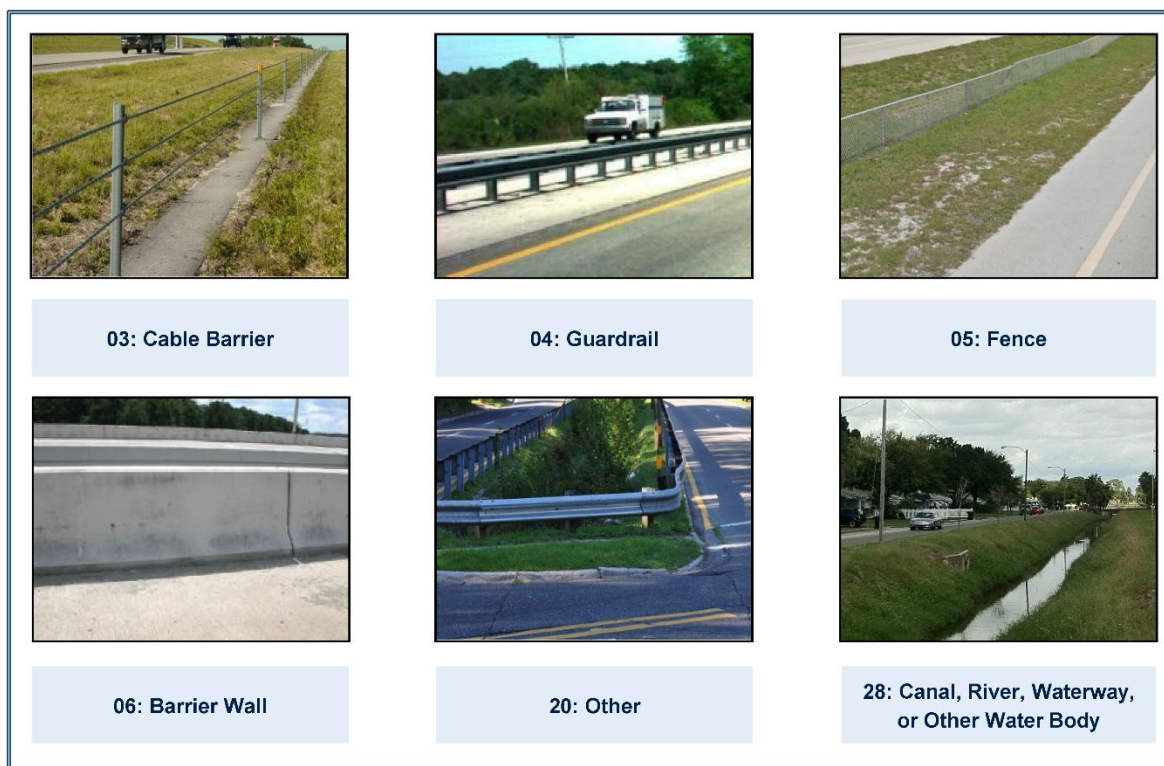
**Important When Gathering:** A barrier is defined as any longitudinal and vertical physical structure between roadbeds preventing motorists from crossing to the other side of the travelway.

**How to Gather this Data:** Record appropriate code.

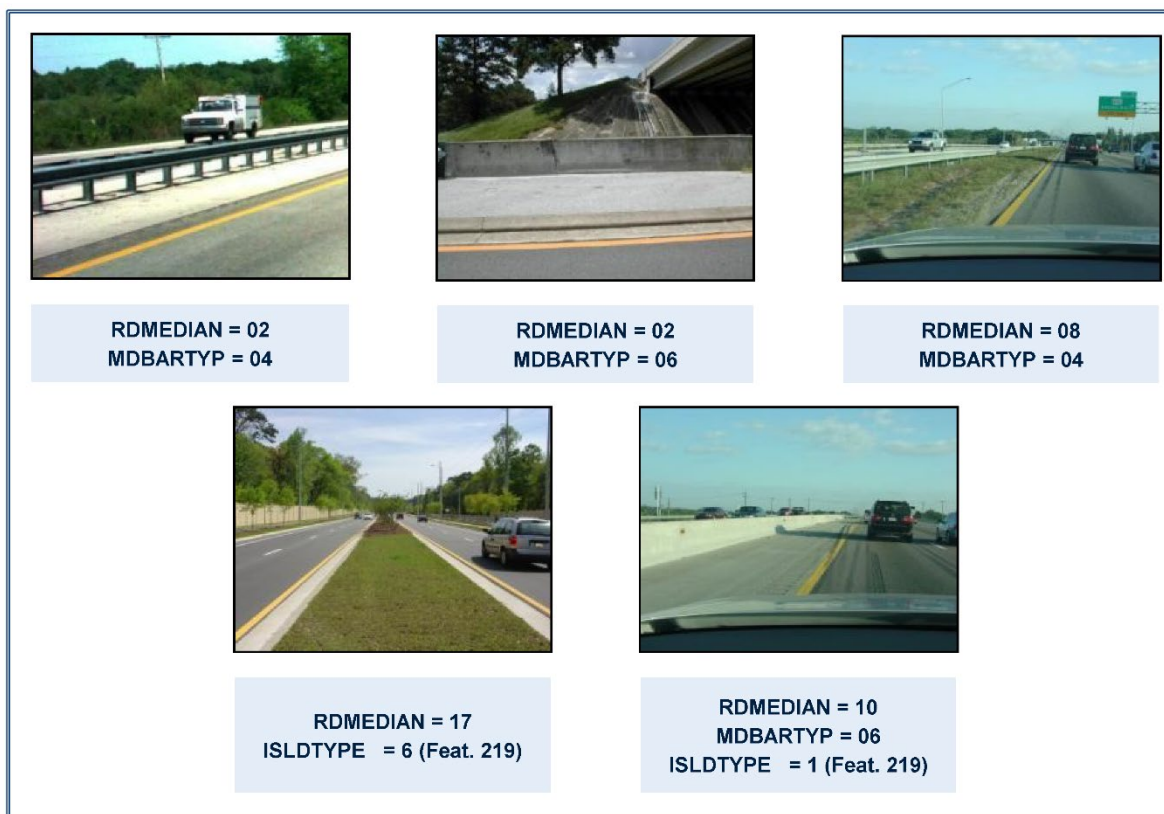
**Special Situations:** When more than one barrier type exists, use Code 20-Other.

Codes	Descriptions
03	Cable Barrier
04	Guardrail (all types)
05	Fence
06	Barrier Wall
20	Other
28	Canal, river, or other waterway

## EXAMPLES



## EXAMPLES OF CODING COMBINATIONS



## MEDWIDTH | HIGHWAY MEDIAN WIDTH

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
36		Planning, Maintenance, Work Program, Traffic Operations, HPMS	All functionally classified roadways on the SHS, all HPMS standard samples off the SHS, Active Exclusive roadways, all SIS related roadways, and all managed lanes.	N/A	N/A

**Definition/Background:** Denotes the median width in feet.

**Cross-Reference/Tolerance:** Dimensional Accuracy: 1 foot for medians less than or equal to 50 feet wide; 2 feet for medians greater than 50 feet wide.

**How to Gather this Data:** Start from outside edge of yellow painted line of the median and measure straight across to the outside edge of the yellow painted line on the opposite side.

**Value for Median Width:** 3 Bytes: XXX—Record in feet

**Special Situations:** If no painted lines exist, substitute edge of painted line with edge of through pavement. If median is raised or a ditch, do not add the contour as part of the median width measure.

## RDMEDIAN | HIGHWAY MEDIAN TYPE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
35		Planning, Maintenance, Work Program, Traffic Operations, HPMS	All functionally classified roadways on the SHS, all HPMS standard samples off the SHS, Active Exclusive roadways, all SIS related roadways, and all managed lanes.	N/A	N/A

**Definition/Background:** A median is a barrier or other physical separation between two lanes of traffic traveling in opposite directions, which can either be raised, painted, or paved.

**How to Gather this Data:** Collect and code the median type and the barrier type separately. Use the applicable median type code. The predominate median type method is the minimum requirement for collecting this data; however, it may be exceeded at the District's discretion. Be consistent in data collection with whatever level of detail chosen.

Codes	Descriptions
01	Paved ( <b>not</b> for Two-way Left Turn Lane—TWLTL)
02	Raised Traffic Separator
08	Vegetation
17	Curb & Vegetation
20	Other
35	Two-way Left Turn (Effective September 2019)
41	Counted Roundabout
42	Non-counted Roundabout
43	Counted Traffic Circle
44	Non-counted Traffic Circle
50	Non-counted Managed Lane

**Special Situations:** Roundabouts are coded as wide medians. See “Inventorying Roadways with Roundabout Intersections” for coding wide medians.

## EXAMPLES



01: Paved



02: Raised Traffic Separator



08: Vegetation



17: Curb and Vegetation



20: Other

35: Two Way Turn  
Effective 9/2019  
(previously in Feature 213)

All roundabouts have the following features:

- **Yield at Entry:** Traffic entering the circle yields to traffic already in the circle and continues un-impeded in a continuous counterclockwise traffic flow.
- **Traffic Deflection:** Pavement markings and/or raised islands direct traffic into the rotary in a one-way continuous counterclockwise flow.



- **Geometric Curvature:** The radius of the circular road and the angles of entry are designed to slow the speed of vehicles. Although the geometry is usually circular, roundabouts can be varying shapes.
- **No Impediments:** The center island does not introduce impediments to the traffic flow. There are no parking facilities on either side of the circle and pedestrian crossings are not allowed to cross the circle.

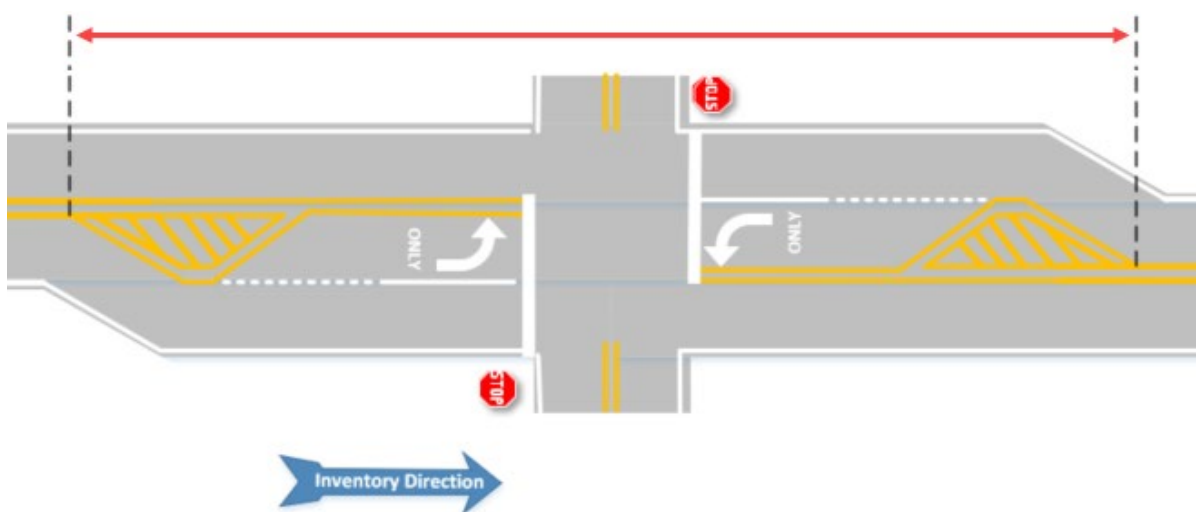


If any of these criteria are not met, then the roadway is a traffic circle. All traffic circles have the following features:

- **Variable Type of Entries:** Traffic enters the traffic circle under various traffic controls, e.g., yield at entry, stop signs, and/or traffic signals, and continues in a continuous counterclockwise traffic flow.
- **Traffic Deflection:** Pavement markings and/or raised islands direct traffic into the traffic circle in a one-way continuous counterclockwise flow.
- **Geometric Curvature:** The radius of the circular road and the angles of entry are designed to slow the speed of vehicles. Traffic flow into the circle also can be slowed or stopped by other traffic control devices. Although the geometry is usually circular, traffic circles can vary in shape.
- **Impediments:** The center island may introduce impediments to traffic flow. There may be parking facilities on either side of the circle. Pedestrians also may cross the traffic circle into the center island.

### *Special Situations*

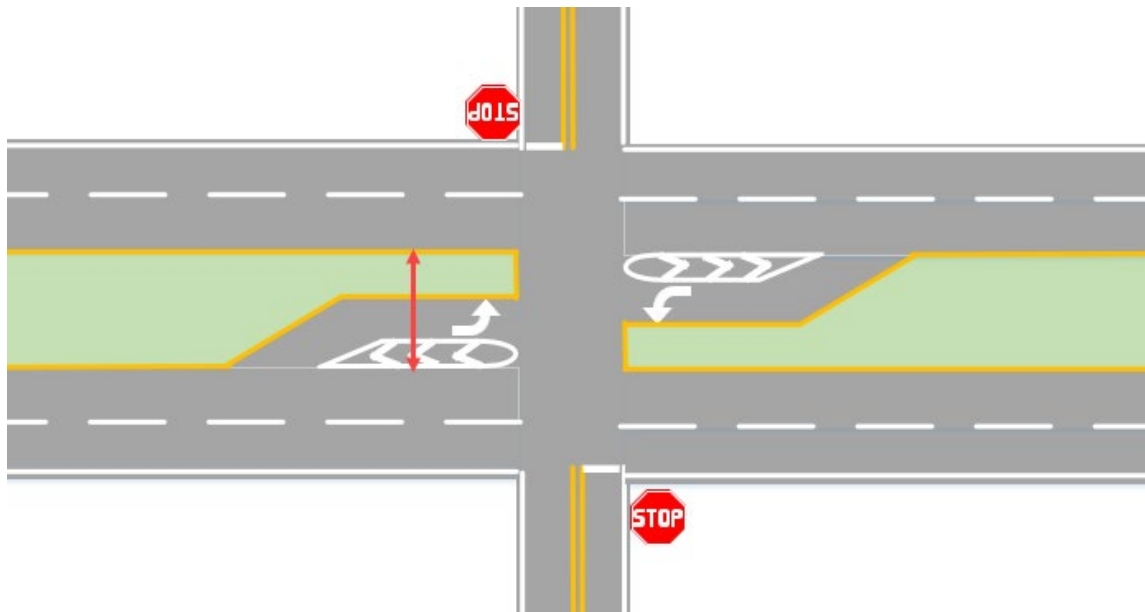
## **INVENTORYING ROADWAYS WITH PAVED MEDIAN (CODE 01)**



The Paved median typically begins where the three reflectors are located (shown above) and continues until the roadway is no longer divided (shown above) or where the median changes and a new median type begins. If median types change at an intersection, then code the current median type to the center of the intersection and begin the new median type at the same location.

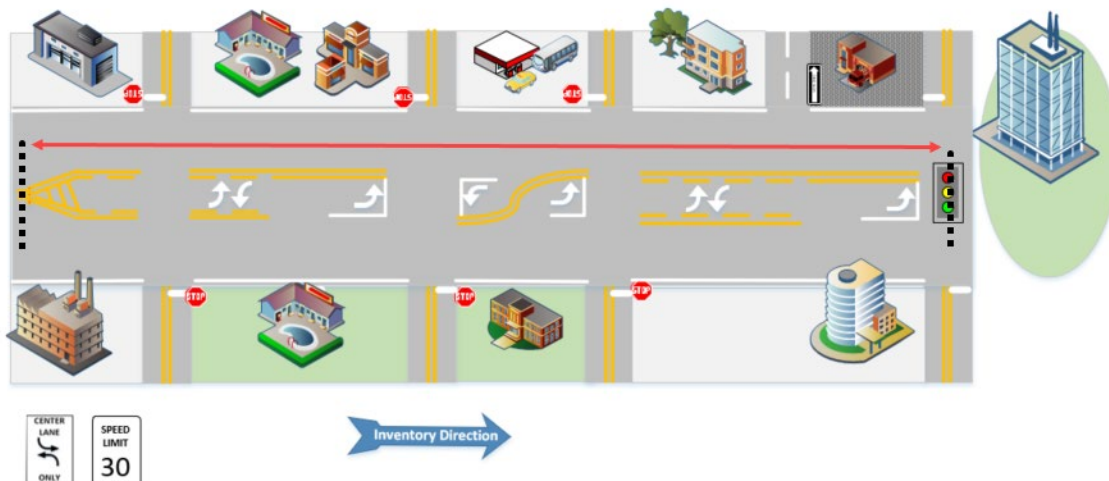
For cross reference, see Feature 213—Left Turn Lanes on how to collect them at intersections.

## INVENTORYING ROADWAYS WITH VEGETATION MEDIAN (CODE 08)



The vegetation median will have turn bays in some areas along the roadway. The turn bays may have positive, neutral, or negative offsets and white painted chevrons separating the turn bay from the traffic of the same direction. This does not change the type of median.

## INVENTORYING ROADWAYS WITH TURN LANE MEDIAN (CODE 35)

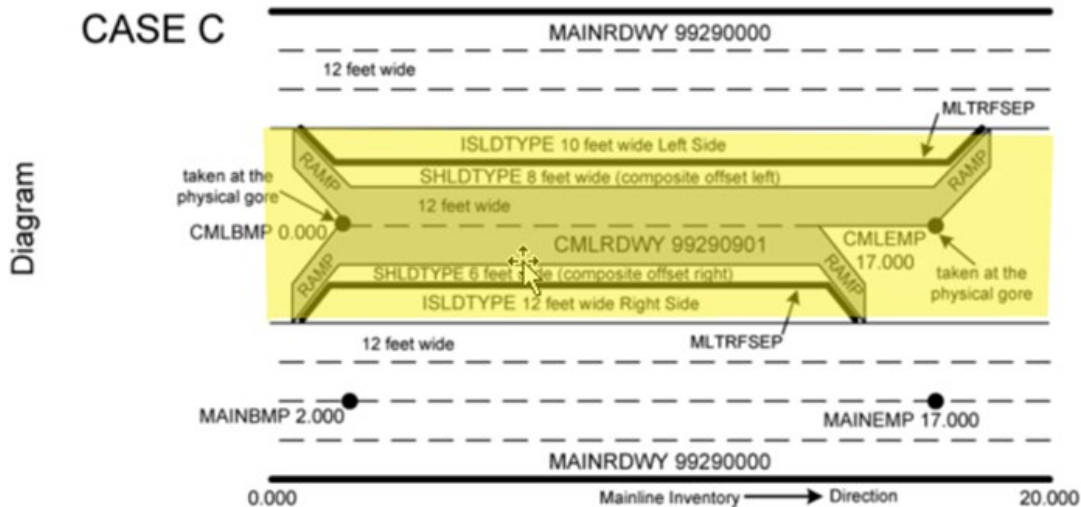


The Turn Lane median typically begins where the three reflectors are located (shown on the left) and continues to the center of the last intersection or at the beginning of a different median type (e.g., paved, curb and vegetation).

If the inventory direction was in the opposite as shown above, the limits would still be the same.

For cross reference, see Feature 213—Left Turn Lanes on how to collect them at intersections.

## INVENTORYING ROADWAYS WITH NON-COUNTED MANAGED LANE(S) (CODE 50)



When managed lanes exist in the area between the inventory and non-inventory directions, the RDMEDIAN for the mainline section is Non-counted Managed Lanes (code 50) and the TYPEROAD must be coded as 2–Divided. The MEDWIDTH is not required. If an Inside Shoulder is present between the mainline and the managed lanes, include it and the associated inside shoulder width with the mainline.

Reference Feature 142 for required characteristics to be collected for associated managed lanes.

## INVENTORYING ROADWAYS WITH COUNTED ROUNDABOUT (CODE 41)

See examples below.

Where a roundabout exists, use this code for the roadway with the highest functional classification. Only one roadway will have code 41 and the other adjoining roadways will use code 42. When two or more roadways have the same functional classification at the same roundabout, code the roadway with the highest traffic count as 41.

For the roadway being inventoried, consider the roundabout as a wide median. The beginning milepoint of the wide median will be located at the physical gore at the point of entry to the roundabout and continue around the center island to the physical gore at the exit of the roundabout. The width of the median (MEDWIDTH) will be the inside diameter of the roundabout. It can be measured or estimated, whichever is most convenient.

The number of lanes will be collected in the same manner as for all other roadways, i.e., for a composite roadway the number of lanes will be coded as the total number of lanes around the ascending side of the roundabout plus the number of lanes around the descending side of the roundabout; for a divided roadway, the number of lanes on the ascending side of the roundabout will be coded for the right roadway and the number of lanes on the descending side of the roundabout will be coded for the left roadway. Barrier types (MDBARTYP) are not required to be coded for roundabouts. See Inventorying Roadways with Non-counted Roundabout (code 42) below.



## INVENTORYING ROADWAYS WITH COUNTED TRAFFIC CIRCLE (CODE 43)

See examples below.

Where a traffic circle exists, use this code for the roadway with the highest functional classification. Only one roadway will have code 43 and the other adjoining roadways will use code 44. When two or more roadways have the same functional classification at the same traffic circle, code the roadway with the highest traffic count as 43.

For the roadway being inventoried, consider the roundabout as a wide median. The beginning milepoint of the wide median will be located at the physical gore at the point of entry to the roundabout and continue around the center island to the physical gore at the exit of the roundabout. The width of the median (MEDWIDTH) will be the inside diameter of the roundabout. It can be measured or estimated, whichever is most convenient.

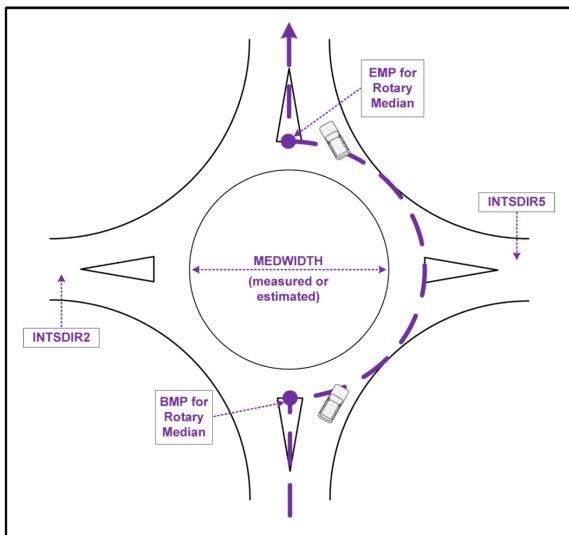
The number of lanes will be collected in the same manner as for all other roadways, i.e., for a composite roadway the number of lanes will be coded as the total number of lanes around the ascending side of the roundabout plus the number of lanes around the descending side of the roundabout; for a divided roadway, the number of lanes on the ascending side of the roundabout will be coded for the right roadway and the number of lanes on the descending side of the roundabout will be coded for the left roadway. Barrier types (MDBARTYP) are not required to be coded for roundabouts. See Inventorying Roadways with Non-counted Roundabout (code 42) below.

## INVENTORYING ROADWAYS WITH NON-COUNTED TRAFFIC CIRCLE (CODE 44)

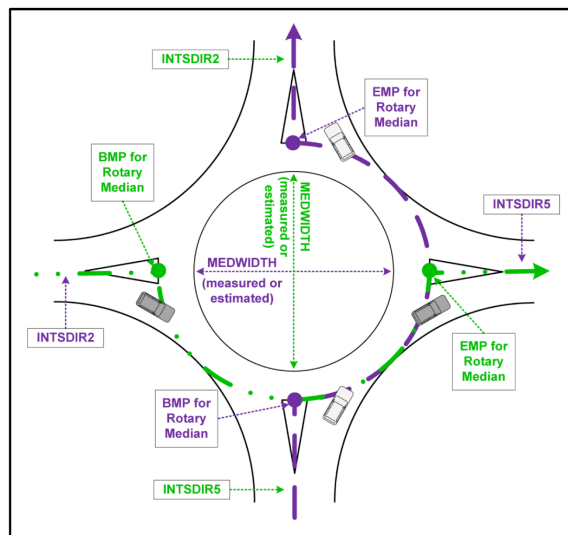
See examples below.

Where a traffic circle exists, use this code for the roadway with the lowest functional classification.

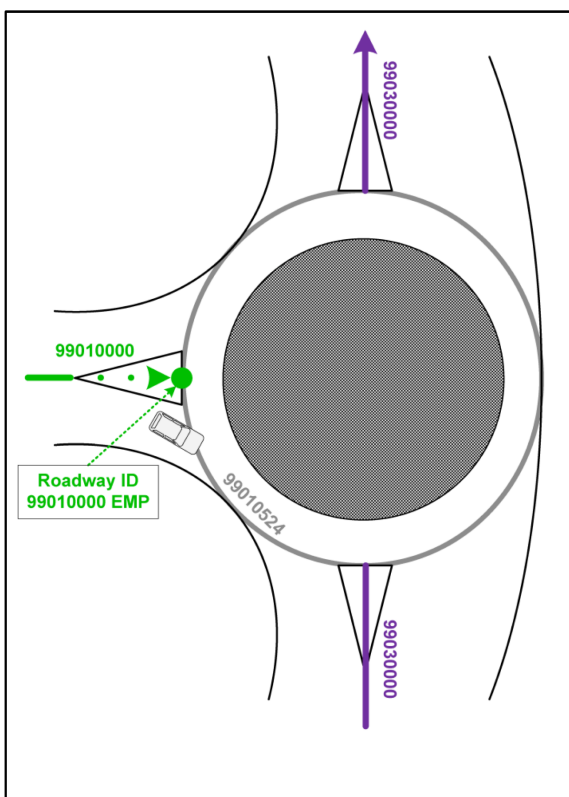
In the case where two (or more) roadways intersect at a roundabout, only one is counted as a roundabout and on the other roadways use code 44—Non-counted traffic circle.



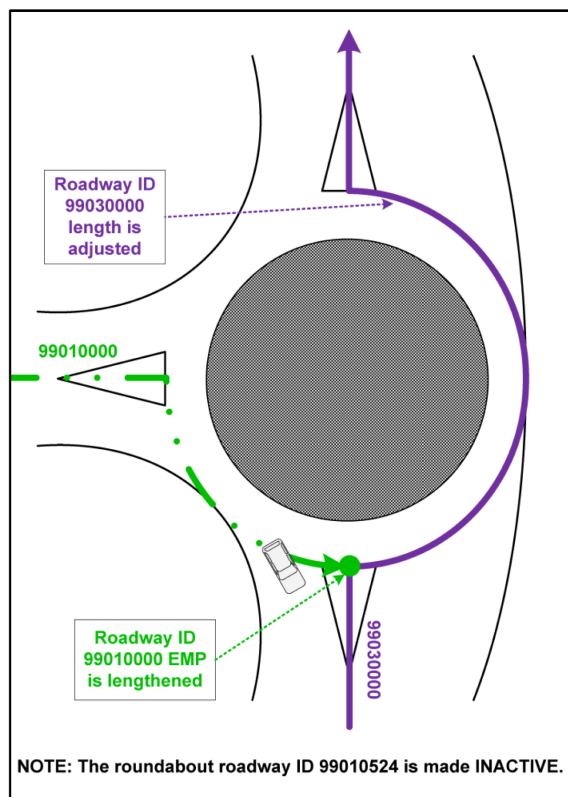
Roundabout Affecting One Roadway ID



Roundabout Affecting Multiple Roadway IDs

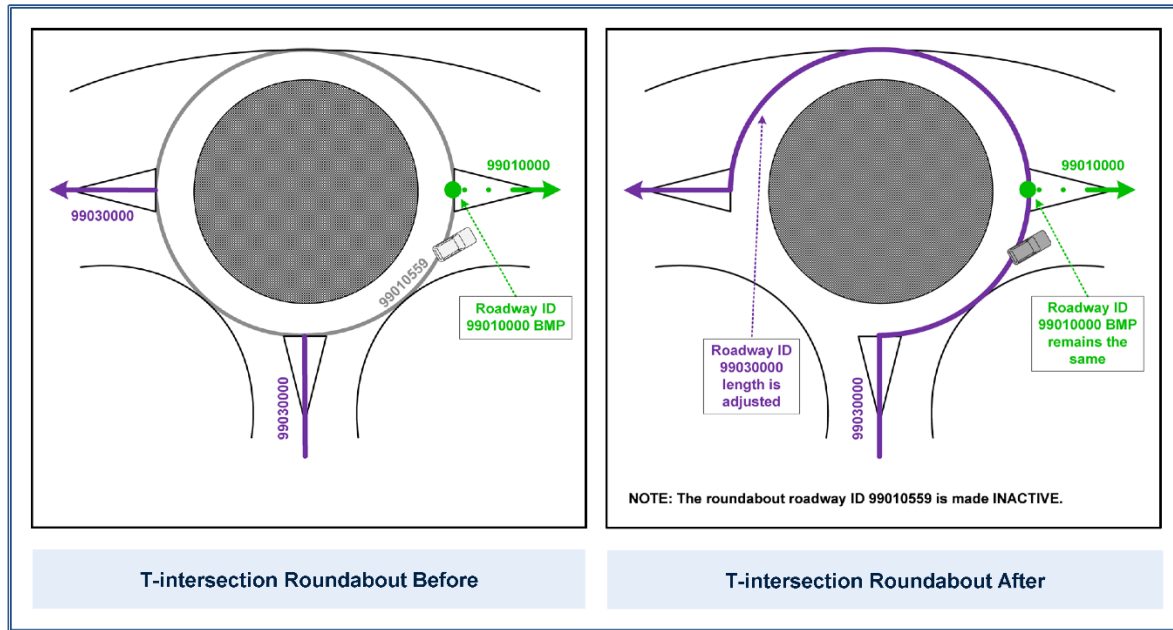


T-intersection Roundabout Before



NOTE: The roundabout roadway ID 99010524 is made INACTIVE.

T-intersection Roundabout After



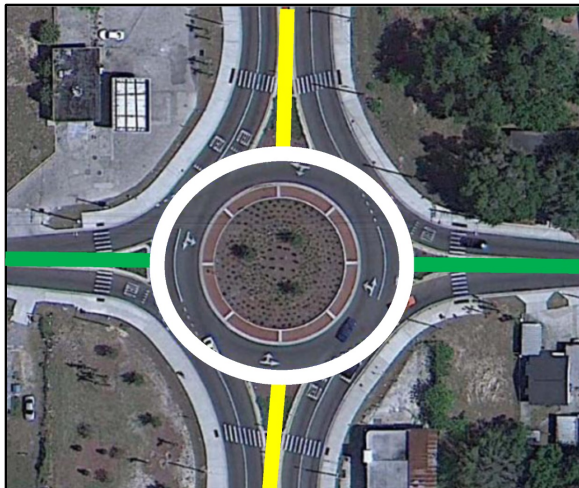
### *The Median Method of Coding Roundabouts and Traffic Circles as Compared to the Previous Method*

This median method will necessitate re-inventorying all roadways containing roundabouts, because the roadway lengths will change, as will all intersecting characteristics that occur after the roundabouts. When the re-inventory is complete, the measured length of the roadway will be the same as the driven length of the roadway. For these affected roadways, the exceptions coded at the locations of roundabouts will be removed, the overall roadway status will be changed, and the roadways for the individual roundabouts will be made Inactive. This re-inventory will be phased in over the District's routine 5-year re-inventory process. By 2019, all ROTARYs should be converted to this method.

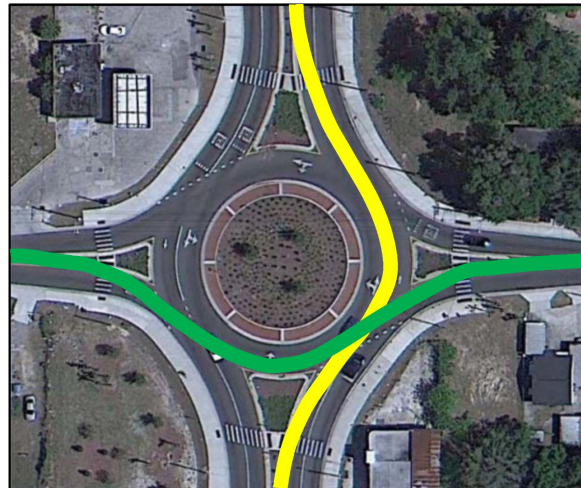
For purposes of drawing SLDs, the diameter of the roundabout can be calculated by assuming that the roundabout is circular. Half of the circumference of the circle can be obtained by subtracting the beginning milepoint of the roundabout from its ending milepoint. The diameter of the roundabout (in feet) can be calculated using the following formula:

$$D = (2 * (EMP - BMP) * 5280) / 3.14$$

It is anticipated that roadways on the SHS containing large traffic circles, like Hollywood Blvd, roadway ID 86040000 in Broward County, will be unaffected by this process, as it was already inventoried in this new rotary method. In any case, the disposition of roadways with large traffic circles will be handled on a case-by-case basis between the District and TDA.



Previous Rotary Method



Median Method

## FEATURE 216

### BIKE LANES/PEDESTRIAN FACILITIES

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C/R/L	Yes	No	Length	Yes	Yes
Responsible Party for Data Collection		District Planning			

**Definition/Background:** This feature denotes the location of bike and pedestrian facilities along a route.

#### BIKELNCD | BICYCLE LANE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		Safety, Policy Planning, Systems Implementation	All non-limited access highways, including bridge segments.	N/A	N/A

**Definition/Background:** A designated bike lane is a stripe-separated portion of the roadway that is designated by pavement markings and/or signs for the preferential use of bicycles. These features of the roadway will not break at intersections or on bridges.

**How to Gather this Data:** For a designated bike lane, the beginning milepoint is recorded and is considered to begin with the first stripe, and the ending milepoint is recorded when striping ends.

If the bike lane begins or ends a reasonable distance beyond the one milepoint, use that point as a reference for the milepoint. It may be helpful to set the “one milepoint” at some easily identified geographic or physical feature or boundary, street intersection, or bridge.

The end of a bike lane is determined in one of three ways:

1. At a “BIKE LANE ENDS” sign.
2. At the beginning of the bike lane in the opposing direction.
3. At the last symbol or sign.

If a bike lane ends at an intersecting street, code the ending point as the middle of the intersecting street. If the bike lane continues on the far side of the intersection, it is recommended not to code a gap, but to carry the bike lane through the intersection.

It is at the Districts’ discretion to collect as much or as little data as they need. Districts may break their data at any appropriate milepoint breaks they deem necessary. There is no restriction on the minimum or maximum for length requirement.

For bike lanes, also code Feature 214 SHLDTYPx using code 1—Designated. The bike lane width is part of the paved shoulder width. Measure from the outside of the pavement edge stripe to the outer edge of the bike lane. If the shoulder area contains curb and gutter, measure to the face of the curb.



For bike lanes, also code Feature 216 BIKSLTCD (Bicycle Keyhole Lane). Do not break lines at bike keyhole, continue through.

Codes	Descriptions
1	Designated
2	Buffered
3	Colored
4	Both 2 and 3
5	Sharrow

## EXAMPLES



1: Designated (with diamond, symbology, and words)



1: Designated (with biker symbology)



1: Designated (with sign)



2: Buffered



3: Colored



4: Both 2 and 3



5: Sharrow

## BIKSLTCD | BICYCLE KEYHOLE LANES (NAME CHANGE EFFECTIVE SEPTEMBER 2019)

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		Safety, Policy Planning, Systems Implementation	All non-limited access highways, including bridge segments.	N/A	N/A

**Definition/Background:** A stripe-separated portion of the roadway, not necessarily marked for bicycles, between a through lane and a right turn lane of an intersection. Bike slots are sometimes referred to as “keyholes.” You may encounter a bicycle keyhole lane where marked exclusive right turn lanes exist at intersections.



**How to Gather this Data:** The beginning milepoint is recorded for a bicycle key hole lane where the taper for the auxiliary lane begins, and the ending milepoint is recorded where its lane striping ends. Alternatively, in the presence of a through lane that terminates at an intersection, the beginning milepoint is recorded at the point where the painted white skip lines or solid white lines of the bike lane begin to separate the outermost lane from the remaining through lanes, and the ending milepoint is recorded where its striping ends. (See the sketch below.)

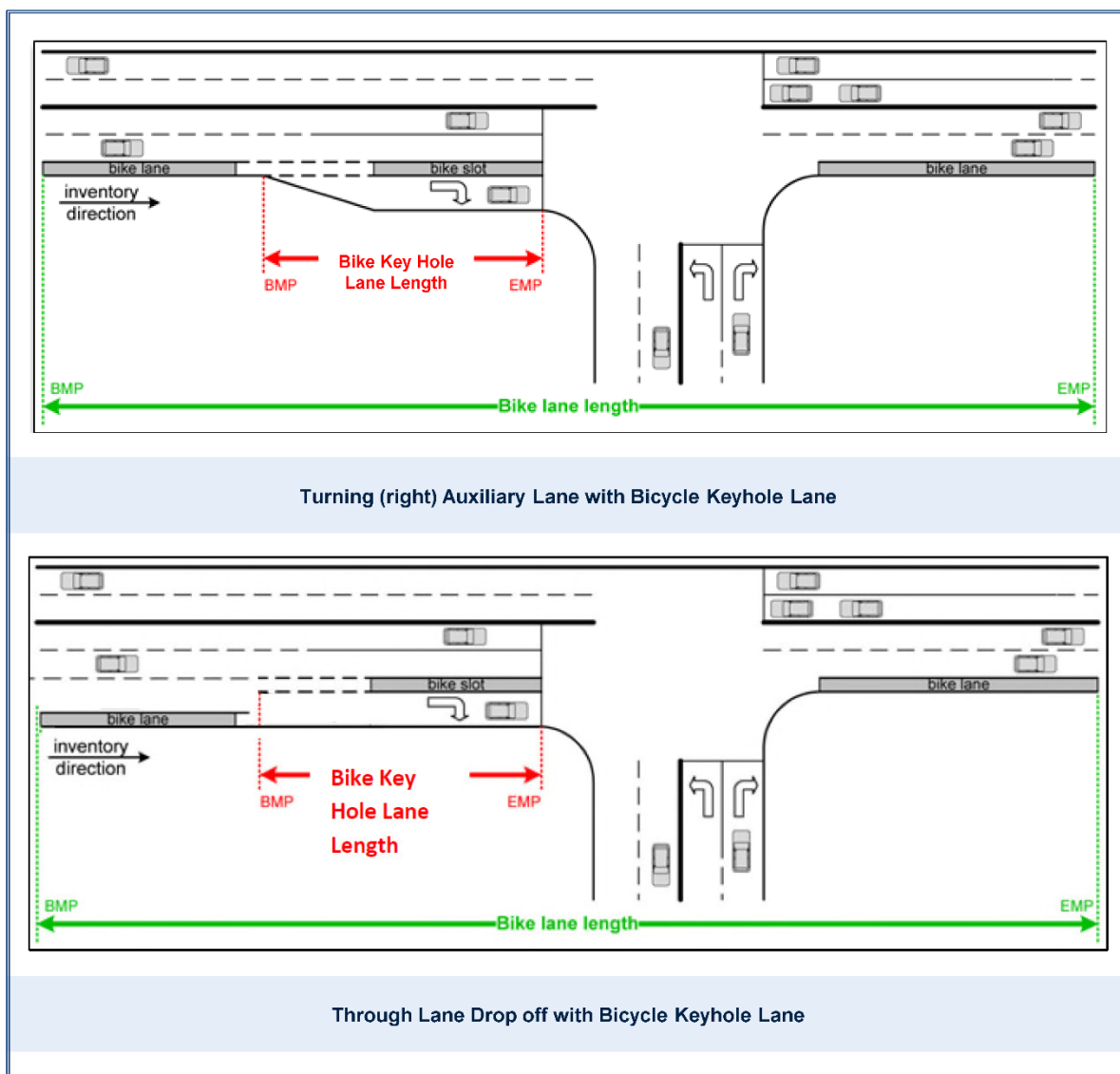
**Special Situations:** Code bike lanes and bicycle keyhole lanes independently.

- Bike keyhole lane overlap bike lanes.
- No gaps should exist between the bike keyhole lanes and the bike lanes.
- When only a bike keyhole lane exists without any bike lanes, code both BIKELNCD and BIKSLTCD.
- Both the bike keyhole lane and the bike lane should be coded. This is because a bike keyhole lane is an offset bike lane to facilitate the bicyclist to make a right turn at the intersection. Both the bike keyhole lane and bike lane codes are necessary for reporting purposes.

Code	Description
1	Designated

If a bike key hole lane exists, whether it is marked or not, it should be collected under code 1-designated.

## EXAMPLES





**SHARDPATH | SHARED PATH WIDTH & SEPARATION**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		Safety, Policy Planning, Systems Implementation	All highways, including bridge segments.	1-right & left; 2-right; 3-left	In feet

**Definition/Background:** An asphalt-paved way, within the highway right-of-way, at least ten feet wide, separated from the shoulder or back of curb by an open space at least five feet wide or by a barrier, not signed as closed to bicycle use, designation as a “shared path” not required. It is restricted from motor vehicle usage.



The shared path separation is an important safety measure. The greater the distance the shared path is from the roadway, the less chance there is for conflict between pedestrians/bicycles and vehicles.

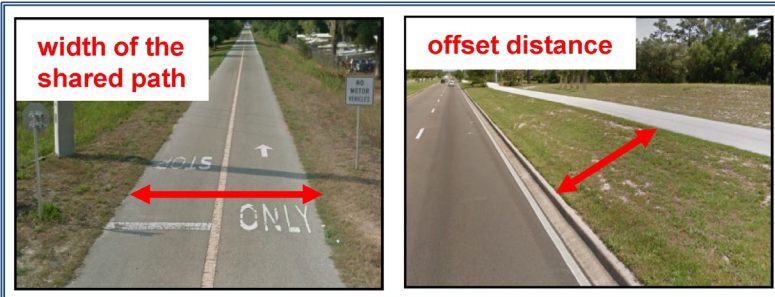
**How to Gather this Data:** If there is a barrier between the shared path and the roadway, determine which type it is and record using Feature 216 SDWLKBCD, in this case, it will become the “shared path” barrier code. Ignore any barriers if they are spaced at distances greater than 60 feet. Remember that short variations can be ignored. Should the offset distance vary, use judgment to determine the average, or representative offset. For more information on measuring offsets, see the diagram on sidewalk separation.

**Offset Distance Instructions:**

XXX.XX—Record to the nearest 6 inches (0.5 feet). Record the distance from the outer edge of the pavement (pavement includes curb and gutter, if present) to the closest edge of the shared path.

**Value for Shared Path Width: 3**

Bytes: XXX—Record actual width of the shared path to nearest foot



Arrows depict where measurements are taken.

## SIDWLKWD | SIDEWALK WIDTH & SEPARATION

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		Safety, Policy Planning, Systems Implementation	All non-limited access highways, including bridge segments.	1-right & left; 2-right; 3-left	In feet

**Definition/Background:** Sidewalk width and offset distance between outer edge of roadway pavement to the closest edge of the sidewalk. The sidewalk separation is an important safety measure. The greater the distance the sidewalk is from the roadway, the less chance there is for conflict between pedestrians and vehicles.



**How to Gather this Data:** Collect sidewalk data wherever sidewalks exist.

**Offset Distance Instructions:** XXX.XX—Record to the nearest 6 inches (0.5 feet). This is known as sidewalk separation. If the sidewalk is flush with the back of the curb, the offset distance is zero. Do not record an offset distance when the sidewalk is located at the back of curb (see images 1, 2, 3, 4 below). Record the offset distance from the outside edge of pavement when there is no curb or from the back of curb to the closest edge of sidewalk (see images 5, 6, 7, 8 below). Should the offset distance vary, as in the case of a meandering sidewalk, use judgment to determine the average, or representative offset.

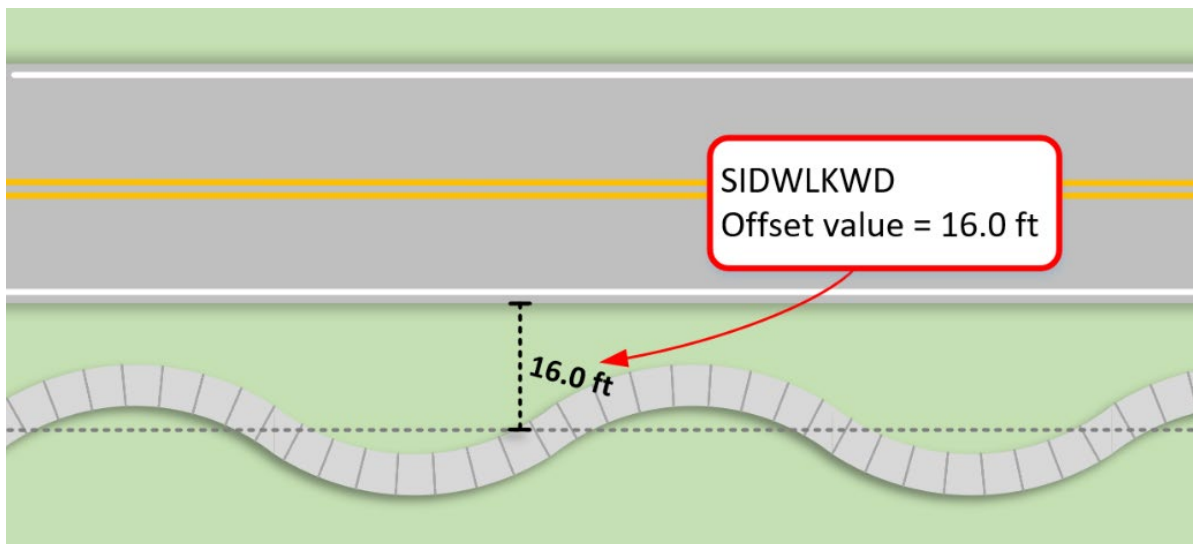
**Special Situation:** Do not code boardwalks and wood sidewalks as these are collected by Office of Maintenance. Do not break the milepoints for the sidewalks when you encounter boardwalks or wood sidewalks.

**Value for Sidewalk Width:** 3 Bytes: XXX—Record to the nearest foot



Note: Arrows depict where measurements are taken. Updated August 2016.

## EXAMPLE



Note: Should the offset distance vary, as in the case of a meandering sidewalk, use judgment to determine the average, or representative offset.

## SDWLKBCD | SIDEWALK BARRIER CODE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		Safety, Policy Planning, Systems Implementation	All non-limited access highways, including bridge segments.	N/A	N/A

**Definition/Background:** Physical barriers that separate motorized vehicle lanes from sidewalks or shared paths. The barrier can be of several types, such as areas for vehicular parking, physical traffic barriers, guardrail, or trees.

**How to Gather this Data:** Record the type of barrier code 0-4.

**Special Situations:** If barrier objects, such as trees or poles, are spaced more than 60 feet apart, they are not considered barriers. To be coded as a barrier, the distance between objects must be 60 feet or less. The barrier may be constructed in the sidewalk, such as trees planted with areas around them to allow growth, watering, and so forth. These areas may or may not be covered with metal grates. However, if the “barriers” are planted in moveable planters or pots, unless sufficient to form a real barrier between vehicles and pedestrians, ignore these.

In areas with on-street parking, the spacing for parking meters should be considered a barrier to the sidewalk.

Codes	Descriptions
0	No barrier
1	On-street parking lane (with or without meters)
2	Trees, planters, utility poles, or other barriers (less than 60 feet apart)
3	Both 1 and 2
4	Guardrail/traffic railing barrier/swale

## EXAMPLES



0: No Barrier



1: On-street Parking Lane  
(with or without meters)



2: Trees, Planters (less than  
60 feet apart)



3: Both 1 and 2



4: Guardrail/Traffic Railing/  
Barrier/Swale



4: Guardrail/Traffic Railing  
Barrier



## FEATURE 217

### SIDEWALKS

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
R/L	No	No	Length	No	Yes
Responsible Party for Data Collection		District Office of Maintenance			

**Definition/Background:** Notes the width of sidewalk adjacent to the roadway and the length from the beginning and ending milepoint. Sidewalks should be recorded as continuous through driveways in curb and gutter sections. Sidewalks should be recorded through intersections and turnouts. Put the exact milepoint where the sidewalk begins and ends unless there is a break greater than 150 feet. It would change if sidewalk width changes. Paved bike paths adjacent to but not part of the roadway are to be included in the sidewalk inventory. Sidewalks on bridges and miscellaneous lengths of sidewalk occurring in medians perpendicular to the roadway need not be inventoried. Only those sidewalks that are the maintenance responsibility of FDOT should be inventoried under Feature 217. Other sidewalks should be coded under Feature 216.

Boardwalks and wood sidewalks used to connect two concrete sidewalks over a ditch or obstacle should be inventoried and included in RCI. Boardwalks should be coded in RCI under Feature 271 Miscellaneous Guardrail for handrails and Feature 217 for sidewalks.

### SIDEWALK | SIDEWALK WIDTH

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		Maintenance	All Active On and Active Exclusive roads, including managed lanes.	2-right; 3-left	In feet

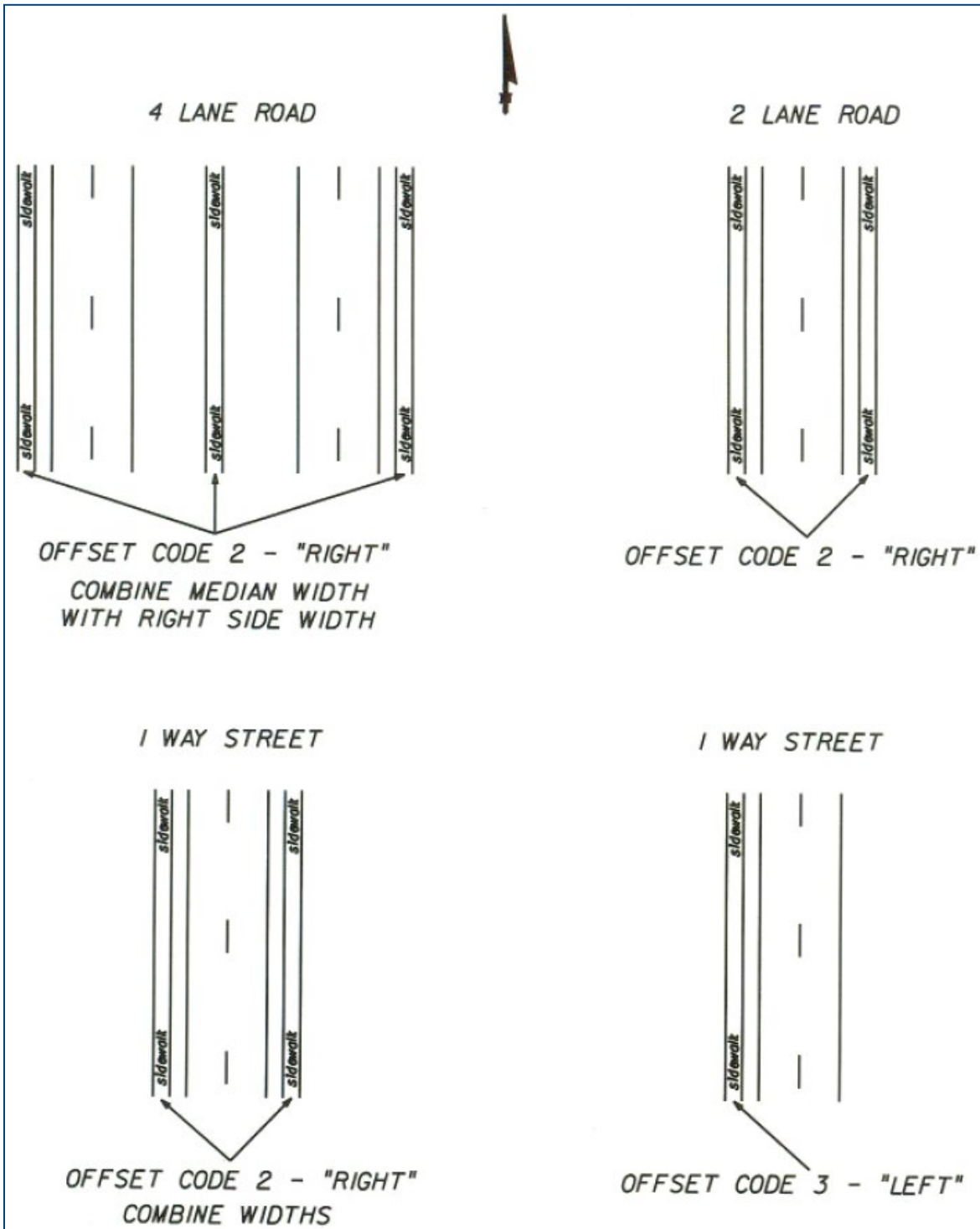
**Required For:** Sidewalks should be recorded as continuous through driveways in curb and gutter sections. Sidewalks may be recorded as continuous through side streets. Sidewalks on bridges and miscellaneous lengths of sidewalk occurring in medians perpendicular to the roadway need not be inventoried. Paved bike paths, not part of the roadway shall be inventoried as sidewalks. Only those sidewalks that are the maintenance responsibility of FDOT should be inventoried. Current FDOT policy should be referenced for those areas in doubt.

#### Special Situations:

The image on the top right shows a narrow strip of concrete along a retaining wall. Combine width of sidewalk on right with strip of concrete along retaining wall and record to the right side of the roadway.

Short sections of sidewalk in medians, like in the image to the bottom right, are not to be inventoried.





**How to Gather this Data:** Inventory between one-mile increments unless the width or offset changes within the one-mile increment. Separate entries are required for the right and left side of the roadway.

Offset Direction: 2-right (when sidewalk exists on both sides of a one directional roadway the widths should be added together and entered with offset code 2) or 3-left (when sidewalk is on the left side only on a one directional roadway).

The width of the two sidewalks on the same side of the roadway can be added and represented as one width. If located at a rest area, ramp, or other applicable sub-section, then it is to be inventoried against the applicable sub-section number.

**Value for Sidewalk Width:** 4 Bytes: XX.XX—Record to nearest foot

## EXAMPLES





## FEATURE 219

### INSIDE SHOULDERS

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
R/L	Yes	No	Length	No	Yes
Responsible Party for Data Collection		District Planning			

**Definition/Background:** The area directly adjacent to the inside lane, starts at the edge of lane striping, on a divided highway with a median of a different material. This buffer area is designed to: a) provide an errant vehicle a safe recovery zone, b) allow disabled vehicles to get out of traffic, c) to stabilize the roadbed, d) and/or to promote drainage by carrying water off the roadway.

#### ISLDTYPE | INSIDE SHOULDER TYPE ISLDTYPX INSIDE SHOULDER TYPE (X=2,3)

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		Planning, HPMS	All functionally classified roadways on the SHS, all HPMS standard samples off the SHS that have ISLDTYPE of paved, and all SIS related road.	N/A	N/A

**Definition/Background:** The area directly adjacent to the inside lane, starts at the edge of lane striping, on a divided highway with a median of a different material. This buffer area is designed to: a) provide an errant vehicle a safe recovery zone, b) allow disabled vehicles to get out of traffic, c) to stabilize the roadbed, d) and/or to promote drainage by carrying water off the roadway.

**How to Gather this Data:** Record only when median and inside shoulder are not of the same material type. The coding of an inside shoulder is required when a median, area between the travel lanes, has two separate distinct characteristic types. Medians are reported in Feature 215 with either one or two material types.

**Two material types reported under one Median Type:** When two different material types exist in a single median type in Feature 215, the inside shoulder type must be coded in Feature 219. It may appear to be double coding, but this additional code allows the inside shoulder data to be evaluated independently from the median type.

1. A simple example is Figure 1, with a median “vegetation” (Feature 215 code 08) and an inside shoulder of “paved with warning device” (Feature 219 code 2).
2. Figure 2 has a median, but not an inside shoulder. Vegetation is not considered an inside shoulder.
3. Figure 3 has an inside shoulder because the pavement functions as such. In this case, the inside shoulder would be an exception to the rule of the same material type to the median type. (Feature 215 RDMEDIAN code 01 and MDBARTYP code 06).

The new median type and median barrier type codes require that the barrier

wall and the pavement both be coded since medians are collected from yellow stripe to yellow stripe so that the median width can properly be recorded.

When coding the inside shoulder, it is very important to consider the median material.

Code the inside shoulder type for the first shoulder closest to the through traffic lane counting towards the centerline of the median. Code each side of the roadway, i.e., left and right sides. Record up to three inside shoulder types for each side.



Figure 1



Figure 2

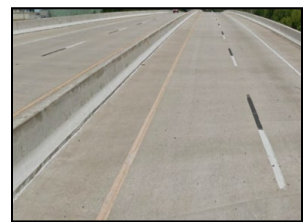


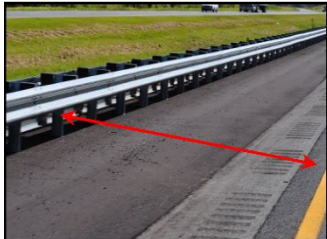
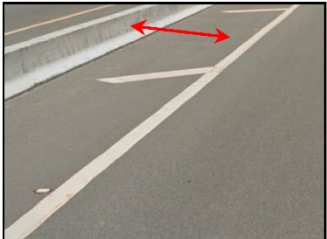




Figure 3

Codes	Descriptions
0	Raised Curb (no shoulder or width exists)
2	Paved with Warning Device (raised or indented strips)
6	Curb & Gutter
7	Other
8	Curb with Resurfaced Gutter (asphalt paved over gutter)

EXAMPLES

	
0: Raised Curb (no shoulder or width exists)	1: Paved
	
2: Paved with Warning Device (raised or indented strips)	
	
6: Curb and Gutter	8: Curb with Resurfaced Gutter (asphalt paved over gutter)

*Note: Arrows depict where measurements are taken.*

## ISLDWDTH | INSIDE SHOULDER WIDTH ISLDWTHX | INSIDE SHOULDER WIDTH (X=2,3)

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
39		Planning, HPMS	All functionally classified roadways on the SHS, all HPMS standard samples off the SHS that have ISLDTYPE of paved, and all SIS related road.	N/A	N/A

**Definition/Background:** Denotes the width of a shoulder resulting from a median.

**Cross-Reference/Tolerance:** Dimensional Accuracy: 1 foot. This standard may not apply if a shoulder width varies by more than the standard. This will be addressed on a case-by-case basis during Quality Assurance Reviews (QARs).

**How to Gather this Data:** Code the inside shoulder width to the nearest 6 inches. The first shoulder width should be the closest to the pavement edge going away from the centerline. Measure from the outside stripe of the travel lane to the edge of the shoulder nearest the median. If more than one inside shoulder exists, measure each individually and code using ISLDWTHx.

**Value for Inside Shoulder Width:** 3 Bytes: XX.X—Record 01.0-99.5 feet. Enter to nearest 6 inches (0.5 feet)

**Special Situations:** Code the second and third if applicable under ISLDWTHx.

Paved shoulders that are 1 foot or less are not considered shoulders because they are incidental and exist primarily due to the necessary spacing required for the 1-foot width of the wheel of the striping equipment. Shoulders are required to be at least 1 foot wide or wider before they are collected.



### Diagram for Curb & Gutter

Width Measurement



In the Technical Task Force meeting held August 23, 2012, the decision was to use the default value of 2 feet for curb & gutter.



## FEATURE 221

## HORIZONTAL CURVE

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C/R/L	Yes	No	Length	Yes	Yes
<b>Responsible Party for Data Collection</b>	District Planning				

**Definition/Background:** Represents a directional line segment of the roadway showing the degree of curvature of the roadway and bearing changes effected by curves in the roadway and/or horizontal shifts in the roadway.

## BEARING | COMPASS BEARING

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		Planning, Safety	All functionally classified roadways on the SHS.	N/A	N/A

**How to Gather this Data:** In office—Refer to construction plans or survey field book.

Enter N or S, the degrees/minutes/seconds, and the direction of deviation. Determine the angle deviation from north or south and the direction of the deviation.

Code using the described format. For example, a roadway heading 29 degrees in an eastward direction from north would have a deviation description of “N 29° E,” and a roadway 35 degrees from south in a westward direction would be “S 35° W.”

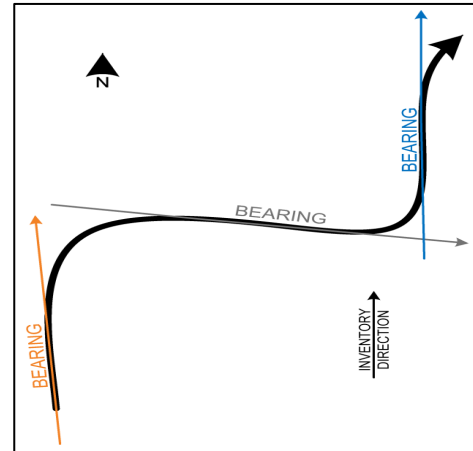
**Value for Compass Bearing:** 11 Bytes: XXXDXX'00"X—Record curve degrees/minutes/seconds

Enter using the following format:

D , 0 0 ” Format											
1	2	3	4	5	6	7	8	9	10	11	Position

Below are descriptions for the byte positions:

- 1        N (north) or S (south)
- 2, 3     the number of degrees the roadway turns
- 4        D for degrees
- 5, 6     minutes of the curve
- 7        single quote (') for minutes
- 8, 9     seconds of the curve
- 10       double quote (") for seconds
- 11       direction in which the curve is traveling: E (east) or W (west)



## HRZCANGL | HORIZONTAL CURVE CENTRAL ANGLE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		Planning, HPMS	All functionally classified roadways on the SHS.	N/A	N/A

**Definition/Background:** Denotes the roadway segment's central curve angle. Also commonly referred to as the delta ( $\Delta$ ).

**PI**—Point of Intersection. The point where the back and forward tangents intersect.

**Central Angle**—Angle formed by two radii drawn from the center of the circle to the PC and PT. Also referred to as the delta ( $\Delta$ ).

**Required For:** All functionally classified roadways on the SHS.

**How to Gather this Data:** In office—Refer to construction plans or survey field book. Enter degrees/minutes/seconds. Refer to coding box.

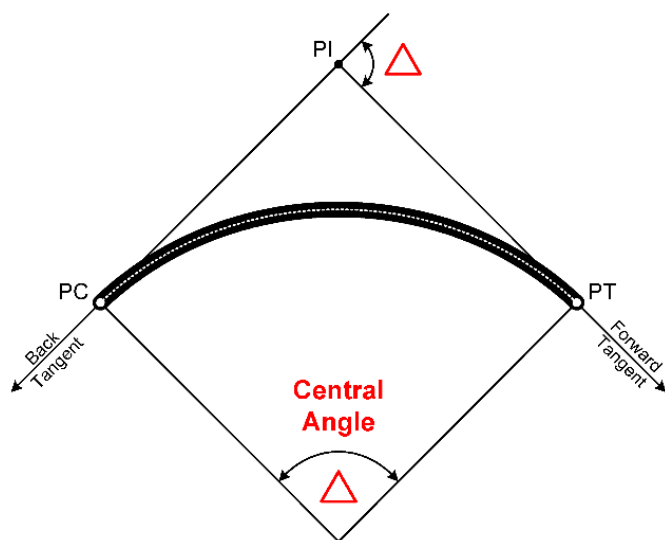
**Value for Horizontal Curve Central Angle:** 13 Bytes: XXXDXX'XX.00"—Record angle according to degrees/minutes/seconds /hundredths of a second

Enter using the following format:

D , . 0 0 " Format													
1	2	3	4	5	6	7	8	9	10	11	12	13	Position

Below are descriptions for the byte positions:

- 1-3 will be the number of degrees of the angle (zero fill degrees; e.g., 005 for 5 degrees)
- 4 will always be D for degrees
- 5, 6 will be the minutes of the curve
- 7 will always be a single quote (') for minutes
- 8, 9 will be the seconds of the curve
- 10-12 will always be.00 (optional—may be removed)
- 13 will always be a double quote (") for seconds



CURVE DATA	
PI STA	= 406+00.58
DELTA	= 18° 02' 46" (RT)
D	= 1° 30' 00"
T	= 606.56'
L	= 1,203.07'
R	= 3,819.72'
PC STA	= 399+94.03
PT STA	= 411+97.10

## HRZDGCRV | HORIZONTAL DEGREE OF CURVE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		Planning, HPMS	All functionally classified roadways on the SHS.	1-right and left 2-right 3-left	N/A

**Definition/Background:** Denotes the degree of curvature per 100 feet. Sometimes referred to as the D value of the curve.

The horizontal degree of curve is used to calculate the CURCLASx (x = A-F) in Feature 118 (HPMS).

The degree of curvature is measured by the angle subtended at the center by an arc 100 feet long.

Small D values represent flat curves with large radii, and large D values represent sharp curves with small radii. In general, D values larger than 20° are rare.

**How to Gather this Data:** In office—Refer to construction plans or survey field book.



Enter degrees/minutes. Refer to coding box. The horizontal degree of curve should be coded for both sides of the roadway for all divided roadways that have different alignments.

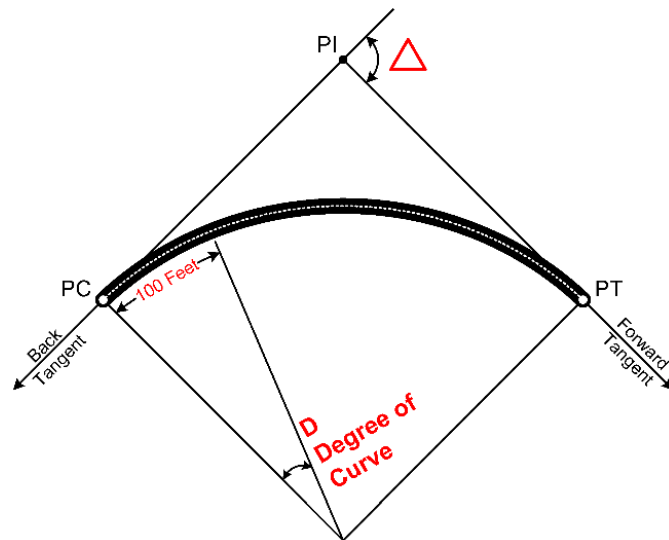
**Value for Horizontal Degree of Curve:** 7 Bytes: XXXDXX'—Record degrees/minutes

Enter using the following format:

D , Format							
1	2	3	4	5	6	7	Position

Below are descriptions for the byte positions:

- 1-3 will be the number of degrees the roadway turns
- 4 will always be D for degrees
- 5, 6 will be the minutes of the curve
- 7 will always be a single quote (') for minutes



#### CURVE DATA

PI STA	= 406+00.58
DELTA	= 18° 02' 46" (RT)
D	= 1° 30' 00"
T	= 606.56'
L	= 1,203.07'
R	= 3,819.72'
PC STA	= 399+94.03
PT STA	= 411+97.10

## HRZPTINT | HORIZONTAL POINT OF INTERSECTION

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		Planning, HPMS	All functionally classified roadways on the SHS.	N/A	N/A

**Definition/Background:** Milepoint number for the intersection of the back and forward tangents projected onto the roadway.

**PC**—Point of Curvature. The point on the back tangent where the curve begins.

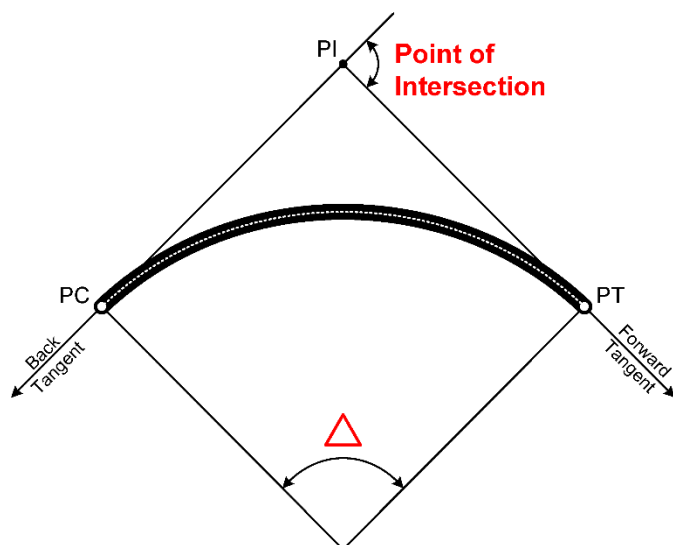
**PI**—Point of Intersection. The point where the back and forward tangents intersect.

**PT**—Point of Tangency. The point on the forward tangent where the curve ends.

**How to Gather this Data:** In office—Refer to construction plans or survey field book. Enter in milepoint number for the intersection of the point of curve.

Record the milepoint of the PC as the BMP and the milepoint of the PT as the EMP of Feature 221.

**Value for Horizontal Point of Intersection:** 6 Bytes: XXX.XXX—Record milepoint of the PI



### CURVE DATA

PI STA	= 406+00.58
DELTA	= 18° 02' 46" (RT)
D	= 1° 30' 00"
T	= 606.56'
L	= 1,203.07'
R	= 3,819.72'
PC STA	= 399+94.03
PT STA	= 411+97.10

**FEATURE 230***SURFACE DESCRIPTION*

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C/R/L	Yes	No	Length	No	Yes
Responsible Party for Data Collection		District Planning			

**Definition/Background:** Denotes visual interpretation of the condition of the roadway surface.

**PAVECOND | PAVEMENT CONDITION**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
48		Planning, Work Program, Pavement Design, HPMS	All functionally classified roadways on the SHS, all NHS routes, all SIS related roadways, and all paved HPMS standard samples. Effective September 2019.	N/A	N/A

**Cross-Reference/Tolerance:** Estimates to the nearest whole or half value, i.e., 3.0, 3.5, within the applicable range should be made.

**How to Gather this Data:** In field—The pavement condition should be a visual interpretation of the condition of the roadway surface. Estimates to the nearest tenth within the applicable range should be made. Urban and rural principal arterial—interstates are excluded because Feature 125 ROUGHIND is collected for the entire functional system.

**Special Situations:** Where different lanes have different pavement condition ratings, code the worst condition.

Numeric Ranges	Descriptions	Additional Information
0.0-1.0	<b>Very Poor</b>	Virtually impassable. 75 percent or more deteriorated.
1.0-2.0	<b>Poor</b>	Large potholes and deep cracks exist. Discomfort at slow speeds.
2.0-3.0	<b>Fair</b>	Rutting, map cracking and extensive patching.
3.0-4.0	<b>Good</b>	First class ride with only slight surface deterioration.
4.0-5.0	<b>Very Good</b>	Only new or nearly new pavement.

## EXAMPLES



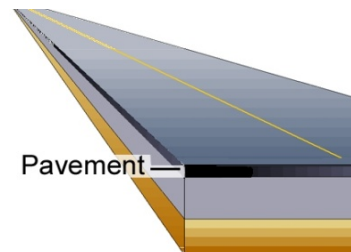
## PAVINDEX | PAVEMENT INDEX

HPMS	MIRE	Who/What Information	uses this	Required For	Offset Direction	Offset Distance
49		Planning, Work Program, Pavement Design, HPMS		All HPMS standard samples	N/A	N/A

**Definition/Background:** Denotes type of pavement below the surface.

**How to Gather this Data:** For asphalt, estimate the thickness of the pavement for codes 1, 2 and 3. For dirt, gravel, non-asphalt, non-concrete code 4. For concrete surface, code 5.

**Special Situations:** Since this is used for HPMS standard samples only, it is not necessary to code for the left roadway side. However, it may be coded for an entire section that has an HPMS standard sample.



Codes	Brief Descriptions	Additional Descriptions
1	High Asphalt	Typically, high volume roadways
2	Medium Asphalt	Typically, local city/county side streets
3	Low Asphalt	Examples are private roads, alleys, includes chipseal—not usually HPMS samples
4	Unpaved	Dirt, gravel—local functional classification
5	Concrete	Typically, high volume roadways, concrete joints visible

## SURFNUM | PAVEMENT SURFACE TYPE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
49		Planning, Work Program, Pavement Design, HPMS	All roadways.	N/A	N/A

**How to Gather this Data:** Record surface type based upon field visual inspection.



Codes	Descriptions
08	Portland Cement Concrete
25	Brick
28	Asphaltic Concrete
99	Other

## FEATURE 232

### *SURFACE LAYERS*

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C/R/L	Yes	No	Length	No	Yes
Responsible Party for Data Collection		District Planning			

**Definition/Background:** Records the limits of the friction course layer, pavement surface thickness, and pavement surface layer.

Codes for this feature are updated by the State Materials Office. New codes are added as needed for new materials that have been approved for usage.

#### FRICTCSE | FRICTION COURSE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
49		Pavement Management, HPMS	All functionally classified roadways on the SHS.	N/A	N/A

**Definition/Background:** The friction course is the layer of non-skid surface on top of the surface type or structural course.

**How to Gather this Data:** In office—It may be found on construction plans. Enter code 0-9. On a divided highway, obtain the friction course for each side separately.

*Code 0*—None if no friction course exists, i.e., on concrete roadways.



**Special Situations:** Call the project manager of any project when two or more type materials are indicated on construction plans.

Codes	Descriptions
0	None
1	Type 1
2	Type 2
3	Type 3
3	Type 3
4	Type 4
5	Type 5
6	Type 6
7	Type 9.5
8	Type 12.5
9	Other

### SURFLXTH | PAVEMENT SURFACE THICKNESS (X=1-7)

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
56-58		Pavement Management, HPMS	HPMS standard samples on all roadways functionally classified as interstate, other freeways and expressways, and other principal arterials.	N/A	N/A

**How to Gather this Data:** Record the surface layer thickness to the nearest inch. SURFL1TH corresponds to the bottom surface layer; SURFL2TH is the next to the bottom layer, and so forth.

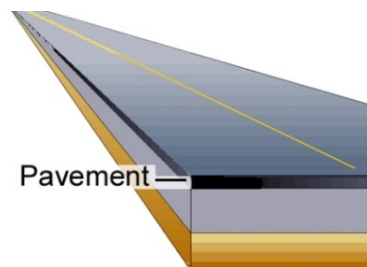
**Value Pavement Surface Thickness:** 4 Bytes: XX.XX—Enter 01.00-16.00 to nearest inch. It is not necessary to code all decimal places.

## SURFLAYX | PAVEMENT SURFACE LAYER (X=1-7)

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
49		Pavement Management, HPMS	HPMS standard samples on all roadways functionally classified as interstate, other freeways and expressways, and other principal arterials.	N/A	N/A

**Definition/Background:** The surface is the composite of the roadway designed to be used for the driving surface. This composite can be made from many materials of different composition and have numerous layers.

**How to Gather this Data:** Identify and record the corresponding composite material code from the list below. SURFLAY1 corresponds to the bottom surface layer, SURFLAY2 is the next to the bottom layer, and so on. Construction plans, Pavement Management Office, county and local engineers.



**Special Situations:** If the pavement surface layer information cannot be determined nor collected due to lack of construction plans or other resources, then code UNKW-unknown. Do not make up data.

Codes	Descriptions
ARMI	Asphalt Rubber Membrane Interlaced
BIND	Asphalt Binder Course
BRCK	Brick Pavers
CONC	Portland Cement Concrete
CRL	Crack Relief Layer
FAB	Pavement Overlay Fabric
FC	Friction Course
FC1	Friction Course 1
FC2	Friction Course 2
FC3	Friction Course 3
FC4	Friction Course 4
FC5	Friction Course 5
FC5B	Friction Course 5 Bonded
FC6	Friction Course 6
F12M	Friction Course 12.5 Modified
F125	Friction Course 12.5
F95	Friction Course 9.5
F95M	Friction Course 9.5 Modified



Codes	Descriptions
<b>S</b>	Type S Asphaltic Concrete
<b>SAHM</b>	Sand Asphalt Hot Mix
<b>SP1C</b>	9.5MM Superpave Coarse Graded
<b>SP1F</b>	9.5MM Superpave Fine Graded
<b>SP2C</b>	12.5 Superpave Coarse Grade
<b>SP2F</b>	12.5MM Superpave Fine Graded
<b>SP3C</b>	19.0MM Superpave Coarse Graded
<b>SP3F</b>	19.0MM Superpave Fine Graded
<b>ST</b>	Surface Treatment
<b>S1</b>	Type S-I Asphaltic Concrete
<b>S2</b>	Type S-II Asphaltic Concrete
<b>S3</b>	Type S-III Asphaltic Concrete
<b>T1</b>	Type I Asphaltic Concrete
<b>T2</b>	Type II Asphaltic Concrete
<b>T3</b>	Type III Asphaltic Concrete
<b>UNIM</b>	Unimproved Surface
<b>UNKW</b>	Unknown
<b>WC</b>	Wearing Course
<b>WC1</b>	Wearing Course 1
<b>WC2</b>	Wearing Course 2
<b>WC3</b>	Wearing Course 3
<b>WC4</b>	Wearing Course 4
<b>WC5</b>	Wearing Course 5
<b>WC6</b>	Wearing Course 6
<b>WC7</b>	Wearing Course 7
<b>WC8</b>	Wearing Course 8

## EXAMPLES

Example of coding SURFLAY1 = S3		
Friction Course	1 INCH	FC - 4
Surface layer 1	3 INCHES	Type = S3
<b>Base</b>		

After the friction course is milled off, a new 4" surface layer and a new friction course are applied		
Friction Course	1 INCH	FC - 6
Surface Layer 2	4 INCHES	Type = S3
Surface Layer 1	3 INCHES	Type = S3
<b>Base</b>		

## FEATURE 233

### BASE

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C/R/L	Yes	No	Length	Yes	Yes
Responsible Party for Data Collection		District Planning			

**Definition/Background:** Records the limits of the base thickness and type of base material.

Codes for this feature are updated by the State Materials Office. New codes are added as needed for new materials that have been approved for usage.

### BASETHK | ROADWAY BASE THICKNESS

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
60		Pavement Management, HPMS	HPMS standard samples and on all roadways functionally classified as principal arterials.	N/A	N/A

**How to Gather this Data:** In office—Information can be extracted from construction plans or core sample data supplied by District Soil Lab. Enter the base thickness to the nearest inch for the roadway.

**Value for Roadway Base Thickness:** 2 Bytes: XX—Code to nearest inch

**Special Situations:** If the base course thickness information cannot be determined nor collected due to lack of construction plans or other resources, then use the default established value for the typical section.

### TYPEBASE | TYPE OF ROADWAY BASE MATERIAL

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
59		Pavement Management, HPMS	HPMS standard samples and on all roadways functionally classified as principal arterials.	N/A	N/A

**Important When Gathering:** Code composite, left and right

**How to Gather this Data:** Record the type of roadway base material. Construction plans contain information regarding materials used. For state-maintained roadways, limerock is typically used.

Friction Course		
Surface layer 1		
Base	8 INCHES	LIMEROCK

Codes	Descriptions
<b>ABC</b>	Asphalt Base Course
<b>ABC1</b>	Asphalt Base Course Type 1
<b>ABC2</b>	Asphalt Base Course Type 2
<b>ABC3</b>	Asphalt Base Course Type 3
<b>BRCK</b>	Brick or Block
<b>CONC</b>	Portland Cement Concrete
<b>ECON</b>	Econocrete Base
<b>GRAG</b>	Grated Aggregate Base
<b>GRAV</b>	Gravel and Stone
<b>LR</b>	Limerock Base
<b>LRST</b>	Limerock Stabilized
<b>MARL</b>	Marl
<b>NONE</b>	None
<b>RAP</b>	Reclaimed Asphalt Pavement Base
<b>RCAB</b>	Recycle Concrete Aggregate Base
<b>SAHM</b>	Sand Asphalt Hot Mix
<b>SBRM</b>	Sand Bituminous Road Mix
<b>CEM</b>	Soil Cement Base
<b>SCLY</b>	Sand Clay Base
<b>SHBR</b>	Shell Base-Bank Run
<b>SHCC</b>	Shell Base-Cemented Coquina
<b>SHEL</b>	Shell Base
<b>SHST</b>	Shell Stabilized Base
<b>SP2F</b>	12.5MM Super Pave Fine Graded

## FEATURE 241

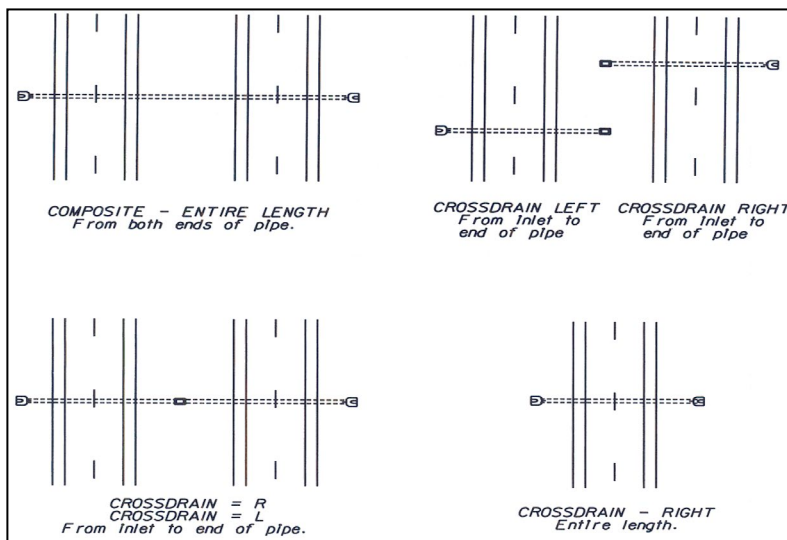
### CROSSDRAINS

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C/R/L	Yes	No	Point	Yes	Yes
<b>Responsible Party for Data Collection</b>	District Office of Maintenance				

**Definition/Background:** Describes box culverts with sum total of openings are less than 20 feet and crossdrains. Both are located across roadways for the purpose of draining excess water. If these characteristics are part of a storm sewer system, do not inventory them because they will be captured under Feature 242.

If the below characteristics are located at a rest area, ramp, or other applicable sub-section, they are to be inventoried against the applicable sub-section number.

They are normally inventoried using the center point of the right side for the milepoint data. Exceptions are when the crossdrains are on the left side only of a divided highway.



#### Offset Rules:

- **Code C**—When pipe is across the entire roadway.
- **Code R**—When pipe is across the right side of a divided highway only.
- **Code L**—When pipe is across the left side of a divided highway only.
- **Code R and code L**—Will be used when the crossdrain pipe is connected in the median by an inlet.

## Culverts

### BOXCULHT | BOX CULVERT HEIGHT

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Enter the box height to the nearest foot.

**Value for Box Culvert Height:** 3 Bytes: XX.X

**Dimensional Accuracy:** 1 foot

### BOXCULLT | BOX CULVERT WIDTH

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Enter the box width to the nearest foot.

**Value for Box Culvert Width:** 3 Bytes: XX.X

**Dimensional Accuracy:** 1 foot

### BXCULGTH | BOX CULVERT LENGTH

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Measure the box length, from outside headwall to outside headwall. Enter the box length to the nearest two feet.

**Value for Box Culvert Length:** 3 Bytes: XXX

**Dimensional Accuracy:** 2 feet

## NOBXCULV | NUMBER OF BOX CULVERTS

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Enter the number of box culverts. Box culverts have a sum of openings less than 20 feet, such as one box culvert has three openings and each are 6' then  $6' + 6' + 6' = 18'$ . If the sum total of the openings are greater than 20 feet then it is considered a bridge, it should have a bridge number assigned shown on the structure, and should be on the SLD. It is captured under Feature 258 Structures. Always check with the Bridge Department to be sure.

**Value for Number of Box Culverts:** 2 Bytes: XX



Single Cell



Multiple Cells

## Crossdrains

### CRSDRLGH | LENGTH OF CROSSDRAIN PIPES

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Measure the crossdrain length, from outside headwall to outside headwall. Enter the length of the crossdrain to the nearest two feet.

**Dimensional Accuracy:** 2 feet

**Value for Length of Crossdrain Pipes:** 3 Bytes: XXX

### NOCRDRAN | NUMBER OF CROSSDRAIN PIPES

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Enter the number of crossdrains.

**Value for Number of Crossdrain Pipes:** 2 Bytes: XX

## EXAMPLES



## Pipes

### PIPETYPE | TYPE OF PIPE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Enter the type of material from which the pipe is constructed. Effective 2017.

Codes	Descriptions
01	Corrugated Metal
02	Concrete
03	Cast Iron
04	PVC (Effective April 2017)

### PIPEDIAM | PIPE DIAMETER

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Enter the circular pipe diameter in inches.

**Value for Pipe Diameter:** 3 Bytes: XXX

### PIPEHIGH | NON-CIRCULAR PIPE HEIGHT

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Enter the non-circular pipe height in inches.

**Value for Non-Circular Pipe Height:** 3 Bytes: XXX



## PIPEWIDTH | NON-CIRCULAR PIPE WIDTH

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Enter the non-circular pipe width in inches.

**Value for Non-Circular Pipe Width:** 3 Bytes: XXX

## FEATURE 242

### STORM SEWERS

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
R/L	No	No	Total	No	Yes
Responsible Party for Data Collection	District Office of Maintenance				

**Definition/Background:** Lists the total number of inlets, manholes, and catch basins within the roadway right-of-way.

If the below characteristics are located at a rest area, ramp, or other applicable sub-section, they are to be inventoried against the applicable sub-section number.

#### INLETS | NUMBER OF CURB INLETS

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** List the total number of curb inlets counted along the outside curb and gutter and the median curb and gutter on the roadway. Code the number of inlets separately on the right and left sides within each one milepoint increment.

There are three types of inlets:

1. Inlet without grate or manhole top (Index 211)
2. Inlet with grate (Index 214)
3. Inlet with manhole top (Index 213)

Reference the Roadway Design Standard Index.

**Value for Number of Curb Inlets:** 3 Bytes: XXX



## MANHOLES | NUMBER OF MANHOLES

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** List the total number of maintained manholes located on the right-of-way, sidewalk, and paved driving lanes that are part of the FDOT storm sewer system. Do not include access openings for curb inlets or other drainage structures as manholes.

There are three types of manholes:



1. Manholes on sidewalks
2. Manholes behind sidewalks
3. Manholes in the roadway

**Value for Number of Manholes:** 3 Bytes: XXX

## MDITCBAS | NUMBER OF CATCH BASINS

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** List the total number of catch basins found in areas such as median and roadway side ditches and others not included under the curb inlets (INLETS) characteristic.

**Value for Number of Catch Basins:** 3 Bytes: XXX

### EXAMPLES



Behind Sidewalk



In Roadway



In Ditch Bottom

## FEATURE 243

### OFF ROADWAY AREAS

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
R/L	No	No	Point	No	Yes
Responsible Party for Data Collection		District Office of Maintenance			

**Definition/Background:** Consist of borrow pits, retention areas, sediment basins, and mitigation areas. Borrow pits are normally used to stock pile borrow materials used for various maintenance activities. Retention or detention areas collect storm water runoff and allow for controlled release to waterways. Sediment basins are used for providing water runoff storage and reducing soil and other particles from pollution of downstream lakes and ponds. Mitigation areas are for re-establishing wetlands.

Notes the total number of borrow pits, retention areas, sediment basins, and mitigation areas used and maintained by the Department. The District Drainage Engineer's Office may be consulted for assistance with definitions.

This is a point feature; only the beginning milepoint should be entered. The milepoint should be the nearest access point on the inventoried section or sub-section. This may be a gate or roadway connection to the borrow pit, retention area or sediment basin.

If the below characteristics are located at a rest area, ramp, or other applicable sub-section, they are to be inventoried against the applicable sub-section number.

#### BORRPITS | NUMBER OF BORROW PITS

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the total number of borrow pits owned by the Department. The milepoint should be the nearest access point.

**Value for Number of Borrow Pits:** 1 Byte: X



## MITARACR | MITIGATION AREA

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes	N/A	N/A

**How to Gather this Data:** Code the acres of mitigation areas. The milepoint should be the nearest access point.

**Value for Mitigation Area:** 6 Bytes: XXX.XXX



## RETAREAS | NUMBER OF RETENTION AREAS

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the total number of retention areas used and maintained by the Department. Feature 411 Mowing, Feature 412 Weed Control, and Feature 272 Fencing in these areas should be inventoried under their respective feature numbers. The milepoint should be the nearest access point.



**Value for Number of Retention Areas:** 1 Byte: X

SEDBASIN | NUMBER OF SEDIMENT BASINS

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the total number of sediment basins used and maintained by the Department. The milepoint should be the nearest access point.

**Value for Number of Sediment Basins:** 3 Bytes: XXX





## FEATURE 245

### ROADSIDE DITCHES

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
R/L	No	No	Length	No	Yes
<b>Responsible Party for Data Collection</b>		District Office of Maintenance			

**Definition/Background:** French drains are used to remove below surface water. Paved ditches are used to protect against erosion and/or swift moving water. Storm sewers are used in place of roadway side ditches in urban areas. Trunk line ditches are used to transfer water collected from lateral lines to a particular destination like retention area or outfall ditch.

Notes the type of roadway side ditch along the roadway. List the ditches maintained by the Department along the roadway.

Crossdrains and laterals should be inventoried as STMSWLEN, storm sewers, in curb and gutter sections. Lateral drains are considered as any crossdrain or connector pipes in a positive enclosed drainage system and not inventoried by others in curb and gutter sections.

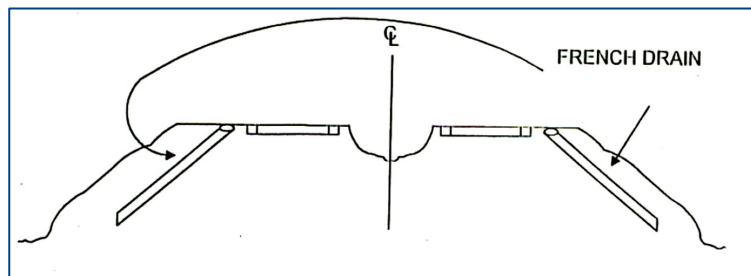
Do not include in RCI old paved ditches that are functioning and are not being maintained on a regular basis. Ditches that are not in the RCI system will not be rated by MRP. If the below characteristics are located at a rest area, ramp, or other applicable sub-section, they are to be inventoried against the applicable sub-section number.

\*PAVDTLEN and STMSWLEN may be used to inventory equalizer ditches and pipes at berm ditches. Total length will be shown.

#### FRDRNLEN | FRENCH DRAIN ROADSIDE DITCH LENGTH

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the miles of French drainpipes, this information is usually obtained from the construction drawings or plans. The length of each installation is measured from the edge of the pavement to the end location on the unpaved shoulder or front slope and then the total length of all such locations within a given mile should be added together and converted to miles. Separate entries are required for right and left sides of the roadway.



**Value for French Drain Roadside Ditch Length:** 4 Bytes: X.XXX

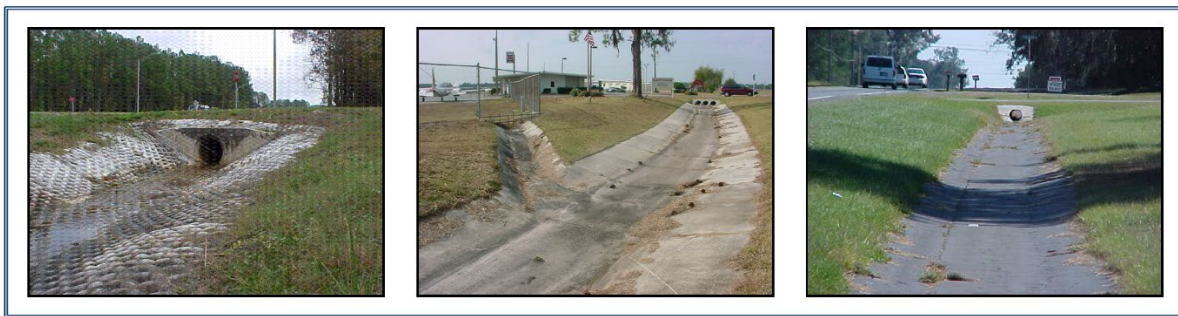


## PAVDTLEN | PAVED ROADSIDE DITCH LENGTH

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the miles of paved ditches. Separate entries are required for right and left sides of the roadway.

**Value for Paved Roadside Ditch Length:** 4 Bytes: X.XXX



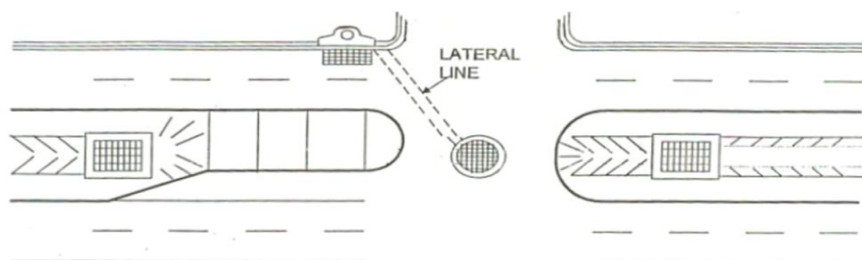
## STMSWLEN | STORM SEWER ROADSIDE DITCH LENGTH

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the miles of storm sewer pipes in connection with roadway drainage. This would include lateral drains, lines crossing the roadway, and side drains, lines that parallel the roadway and are usually under side streets, but would exclude piped turnouts covered under Feature 256. Separate entries are required for right and left sides of the roadway.



**Value for Storm Sewer Roadside Ditch Length:** 4 Bytes: X.XXX

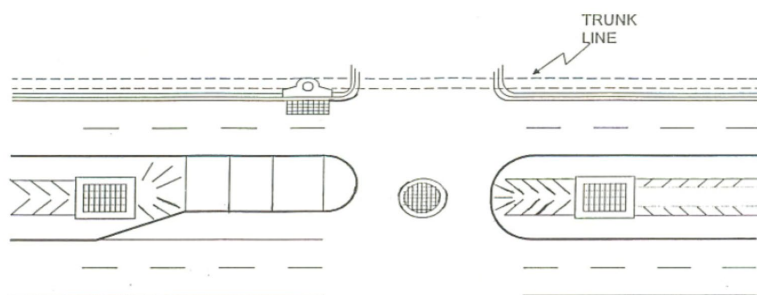


## TRKLNLEN | TRUNK LINE ROADSIDE DITCH LENGTH

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the miles of trunk line pipes. Separate entries are required for right and left sides of the roadway.

**Value for Trunk Line Roadside Ditch Length:** 4 Bytes: X.XXX



## FEATURE 248

### OUTFALL DITCHES

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
R/L	No	No	Point	No	Yes
Responsible Party for Data Collection		District Office of Maintenance			

**Definition/Background:** An outfall ditch transfers roadway water drainage to off-roadway locations such as: creeks, rivers, channels, and other mitigation sites.

Notes the length of the outfall ditches used and maintained by the Department. Also notes the type of maintenance work that needs to be performed for proper operation of the facility. In some cases, the Department does not own the outfall ditch right-of-way and an easement agreement exists with the landowner.

Only the beginning milepoint should be entered. If the below characteristics are located at a rest area, ramp, or other applicable sub-section, they are to be inventoried against the applicable sub-section number.

#### ODITHAND | OUTFALL DITCH BY HAND LENGTH

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the length, to the nearest foot, of the outfall ditch. This is a hand labor cleaning. It cannot be accomplished by mechanical means.

**Value for Outfall Ditch by Hand Length:** 4 Bytes: XXXX

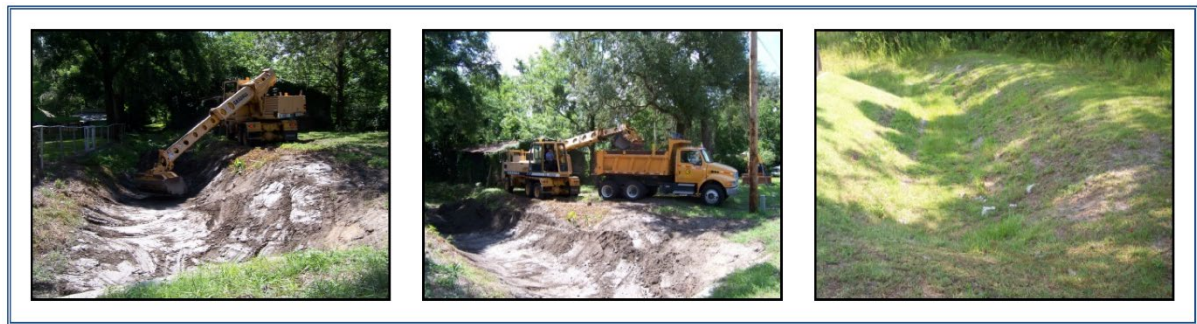


## ODITHAUL | OUTFALL DITCH BY HAULED LENGTH

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the length, to the nearest foot, of the outfall ditch. This work is accomplished by mechanical means with the excess material hauled away from the worksite.

**Value for Outfall Ditch by Hauled Length:** 4 Bytes: XXXX



## ODITPAVE | OUTFALL DITCH BY LENGTH PAVED

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the length, to the nearest foot, of the paved outfall ditch.

**Value for Outfall Ditch by Length Paved:** 4 Bytes: XXXX





**ODITPIPE | OUTFALL DITCH BY LENGTH PIPED**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the length, to the nearest foot, of the piped outfall ditch.

**Value for Outfall Ditch by Length Piped:** 4 Bytes: XXXX

**ODITSPR | OUTFALL DITCH SPREAD LENGTH**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the length, to the nearest foot, of work to be performed by mechanical means to clean an outfall ditch and spread the excess material.

**Value for Outfall Ditch Spread Length:** 4 Bytes: XXXX



## FEATURE 251

### INTERSECTIONS

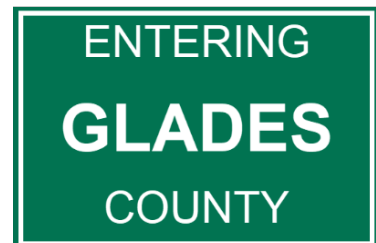
Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	No	No	Point	Yes	Yes
Responsible Party for Data Collection		District Planning			



#### BEGSECNM | BEGIN ROADWAY SECTION MILEPOINT DESCRIPTION

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		Planning, Maintenance, Work Program, Traffic Operations, HPMS, Safety	All roadways.	N/A	N/A
Potential Anchor		Yes			

**Definition/Background:** Identifies the geographical location of the roadway whether it begins at an intersection or does not begin at an intersection. If the roadway does not begin at an intersection, then record the description of the physical location of the beginning milepoint so that it can be located. If possible, place a permanent physical marker in the field identifying the BMP, such as 1) permanent paint 2) survey nail marker or 3) thermoplastic



**Value for BMP Description:** 20 Bytes:  
XXXXXXXXXXXXXXXXXXXX

**How to Gather this Data:** Record the name of the intersecting roadway or boundary at the beginning milepoint of the roadway being inventoried/coded. Refer to Feature 114 for standard naming convention guidelines.

If the street sign is missing, if the street name is unknown or if the street is determined to be unnamed, code as “unsigned.”

**Special Situations:** If the beginning roadway section milepoint name occurs at an intersection, then INTSDIRx Intersection Direction also must be coded.

**ENDSECNM | END ROADWAY SECTION MILEPOINT DESCRIPTION**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		Planning, Maintenance, Work Program, Traffic Operations, HPMS	All roadways.	N/A	N/A
<b>Potential Anchor</b>		Yes			

**Definition/Background:** Identifies the geographical location of the roadway whether it ends at an intersection or does not end at an intersection. If the roadway does not end at an intersection, then record the description of the physical location of the ending milepoint so that it can be located. If possible, place a permanent physical marker in the field identifying the EMP, such as 1) permanent paint 2) survey nail marker or 3) thermoplastic.



**How to Gather this Data:** Record the name of the intersecting roadway or boundary at the end of the section. Refer to Feature 114 for standard naming convention guidelines.

If the street sign is missing, if the street name is unknown, or if the street is determined to be unnamed, code as “unsigned.”

**Value for EMP Description:** 20 Bytes: XXXXXXXXXXXXXXXXXXXXXXXX

**Special Situations:** If the ending roadway section milepoint name occurs at an intersection, then INTSDIRx Intersection Direction must also be coded.

## INTSDIRX | INTERSECTION DIRECTION (X=1-9)

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		Planning, Maintenance, Work Program, Traffic Operations, HPMS	All roadways.	N/A	N/A
Potential Anchor		Yes			

**Definition/Background:** Denotes the name of the intersecting roadway or cross streets.

**How to Gather this Data:** First, determine the angle of intersection, choose the appropriate characteristic name INTSDIR1 through INTSDIR9, then code the intersecting roadway name. The intersection directions are based on the degrees of angle to the roadway being inventoried/coded. Code 1 through code 6 are for roadways that terminate at the intersection. Code 7 through code 9 are for roadways that cross and continue through the intersection.

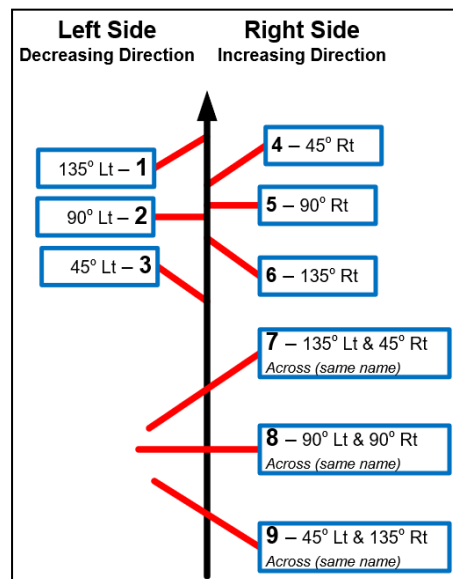
Minimum Coding Requirements for Urbanized Areas:

- It has controls, i.e., stop sign, stop bar, traffic signal, or yield sign.

Minimum Coding Requirements for Rural Areas:

- It is paved or has any type of posted signage.

If the Safety Office requests a roadway be added to RCI, then code the name they provide, but field verify the milepoint. This will assist law enforcement when describing crash locations.



Characteristics	Intersecting Roadway Directions	Tolerance Ranges (Between)
INTSDIR1	135° Left	113°–157° Left
INTSDIR2	90° Left	68°–112° Left
INTSDIR3	45° Left	23°–67° Left
INTSDIR4	45° Right	23°–67° Right
INTSDIR5	90° Right	68°–112° Right
INTSDIR6	135° Right	113°–157° Right
INTSDIR7	135° Left and 45° Right Across (same name)	113°–157° Left and 23°–67° Right
INTSDIR8	90° Left and 90° Right Across (same name)	23°–67° Left and 23°–67° Right
INTSDIR9	45° Left and 135° Right Across (same name)	23°–67° Left and 113°–157° Right



Business entrances may be collected as prescribed under HPMS Feature 118 ATGOTHR.

Refer to Feature 114 for standard naming convention guidelines.

If the street sign is missing, if the street name is unknown, or if the street is determined to be unnamed, code it as “unsigned.”

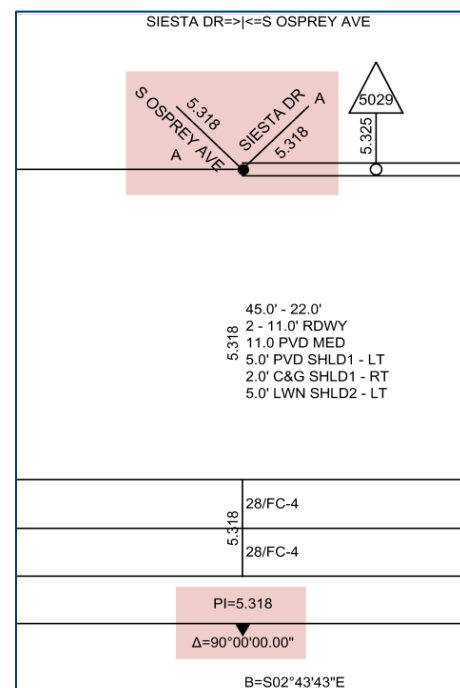
**Special Situations:** If two side roads on opposite sides are separated by 50 feet or less along the roadway, consider it one intersection with the milepoint between the two opposing side roads. Use engineering judgment to determine “midpoint.” Consolidating these very close roadways helps to eliminate over coding. Use the USPS standard street suffixes.

For ramps, code the ramp’s 8-digit roadway ID, the direction of travel, whether it is an on ramp or an off ramp, then a short descriptor. Full descriptions of the ramps will be stored in Feature 114 on the Ramp Roadway ID.

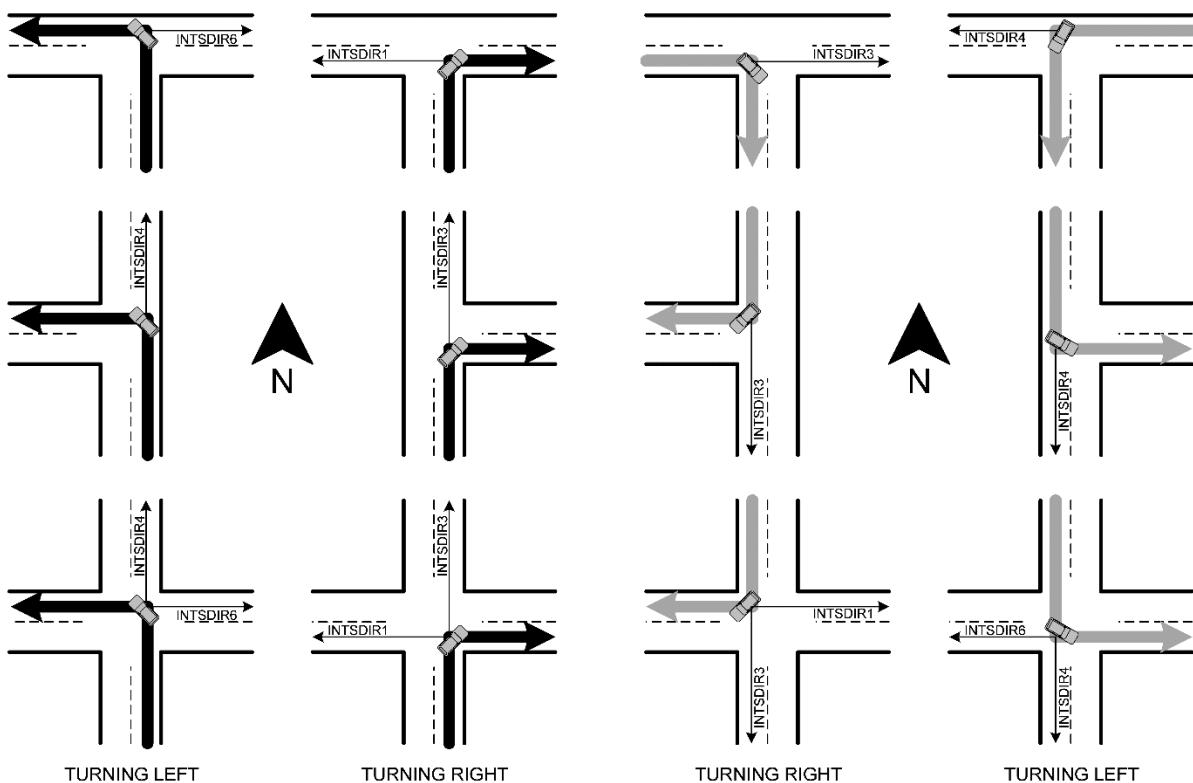
Descriptions	Abbreviations	Examples for coding Intersecting Ramps at
Agricultural Station	AG	99009113 SB ON AG
Rest Area	REST	99009116 NB OFF REST
Service Plaza	SERV	99009119 SB OFF SERV
Toll Plaza	TOLL	99009123 EB ON TOLL
Weigh Station	WEIGH	99009128 NB ON WEIGH
Interchange		99009111 WB ON
Interchange		99009112 EB OFF

**Special Cases:** Coding intersecting roadways that occur at a 90 degree (90°) turn of the inventoried roadway: In these special situations, the available intersection codes for collecting intersecting roadways do not handle that leg of the intersection that continues straight ahead. The recommended method is to inventory all the legs of the intersection in such a manner so that the 90 degree (90°) turn intersections can be drawn and represented on the SLD by coding the intersecting legs at these points from a projected 45 degree (45°) diagonal, so that there are no zero degree (0°) codes used for any intersecting roadways. Using this method, the intersecting roadways are collected at either a 45 degree (45°) or a 135 degree (135°) direction from the projected diagonal as the inventoried roadway makes the 90 degree (90°) turn. If the inventoried roadway makes a turn at a “4-way” intersection, collect both intersecting roadways at the intersection. When plotted on the SLD, these legs will be represented at right angles to each other, and there will be sufficient space on the SLD so the intersections are not drawn on top of each other.

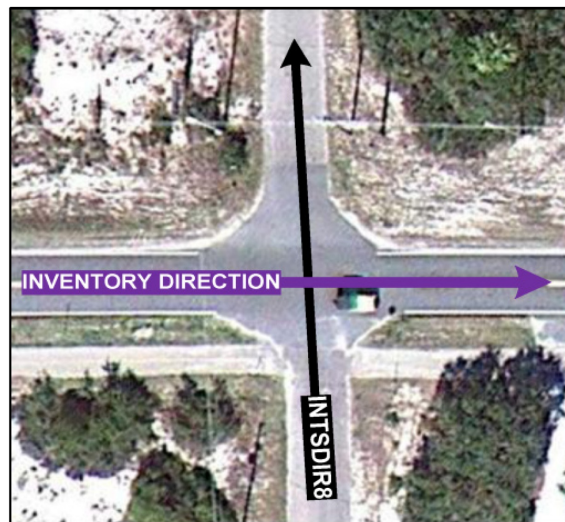
Also code Feature 220 NCPINT (Non-curve Point of Intersection) to denote the change in the direction of the inventory roadway, i.e., 90° turn.



**Value for Intersection Roadway Name:** 20 Bytes: XXXXXXXXXXXXXXXXXXXXX



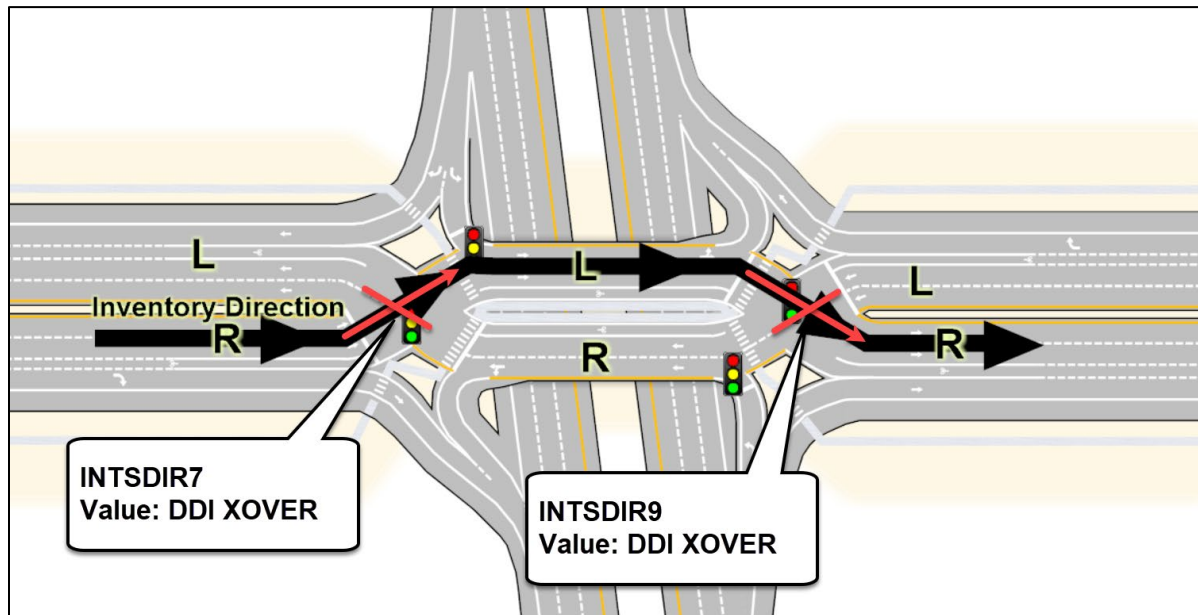
Intersection with No Median Opening



Intersection With Median Opening

For crossover intersections at a diverging diamond interchange, the intersection direction will be coded with INTSDIR7, INTSDIR8, or INTSDIR9, according to the angle of the intersecting roadway as illustrated above. The value for the intersecting roadway name shall be “DDI XOVER.”

## EXAMPLE OF INTERSECTIONS AT A DDI CROSSOVER AREA

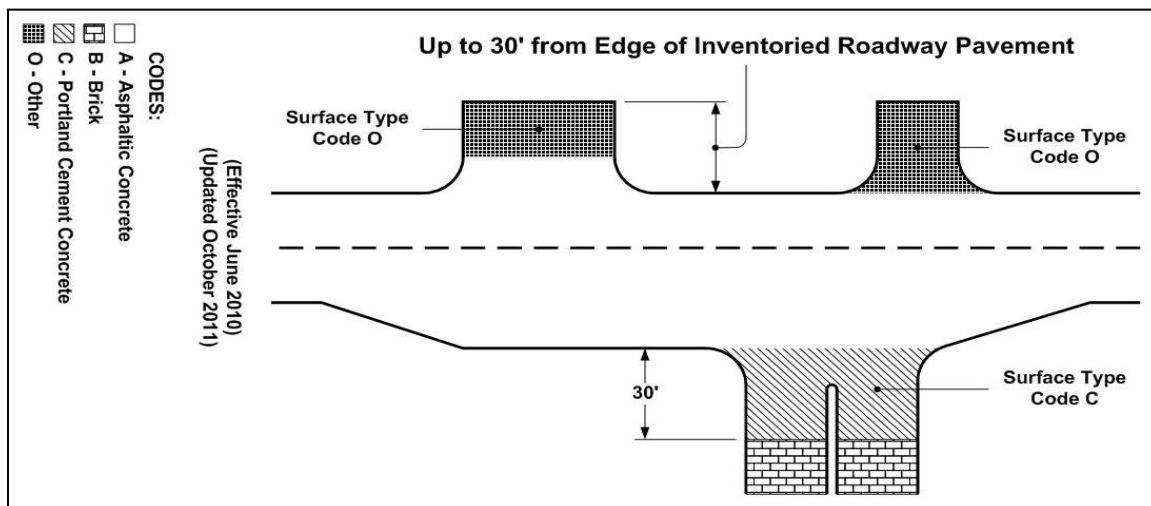


Note: INTSDIR8 would be coded if the intersecting lanes crossed at a 90 angle with respect to each other.

## INTSRTPX | INTERSECTION SURFACE TYPE (X=1-9)

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		Planning, Maintenance, Work Program, Traffic Operations, HPMS	All roadways. <sup>1</sup>	N/A	N/A
Potential Anchor		No			

<sup>1</sup> This characteristic is optional and collected at the District's discretion.



**Definition/Background:** The intersection surface type determines how well merging maneuvers occur at the termination of lane drops; where the tangent section of the roadway and entrance acceleration allow for a smooth, safe transition. Intersections of grade or cross slope should be gently rounded to improve vehicle operation. Pavement generally should be sloped toward the intersection corners to provide super-elevation for turning maneuvers and to promote proper drainage.

**How to Gather this Data:** Record the surface type of the intersecting roadway up to 30 feet from the edge of the inventoried roadway or from the right-of-way line, whichever is less. The only concern is the point of connection of the intersecting roadway and how it interacts with the mainline, not the entire composition of the intersecting roadway itself.

Codes	Descriptions
A	Asphaltic Concrete
B	Brick
C	Portland Cement Concrete
O	Other

## FEATURE 252

### INTERCHANGES

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	Yes	No	Point	Yes	Yes
Responsible Party for Data Collection		District Planning			

#### CROSRDNM | CROSSING ROADWAY NAME

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		Planning, Maintenance, Work Program, Traffic Operations	All Principal arterials—interstate, freeways, expressways, and other limited access facilities.	N/A	N/A

**How to Gather this Data:** Code the milepoint and roadway name of the facility being crossed. Refer to Feature 114 for standard naming convention guidelines. If the roadway name sign is missing or if the roadway name is unknown or if the roadway is determined to be unnamed, then code “unsigned.”

If Feature 122 RDACCESS is coded as either code 1-Full Control or 2-Partial Control, then Feature 252 also must be coded for these same milepoint ranges.

**Value for Crossing Roadway Name:** 20 Bytes: XXXXXXXXXXXXXXXXXXXXXXXX

#### EXITNO | INTERCHANGE/EXIT NUMBER

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		Planning, Maintenance, Work Program, Traffic Operations	All Principal arterials—interstate, freeways, expressways, and other limited access facilities.	N/A	N/A

**How to Gather this Data:** Code the interchange exit number posted in the field. Code the location of these characteristics at the center of the facility being crossed. Exit #28 would be coded as 028. Exit #3A would be coded as 003A. It is not necessary to code every on and off ramps. It is sufficient to code the exit number once for each interchange, unless it is a complex interchange with different parts of it serving different crossroads. For example, on I-10 since Exits 296A and 296B both serve I-75, they should be coded together as Exit 296, at the milepoint where I-75 crosses I-10. However, on I-95 in Duval County, Exits 352A and Exit 352B should be coded separately since they serve two different streets; Exit 352A is for Myrtle Avenue and Exit 352B is for Forsyth Street.

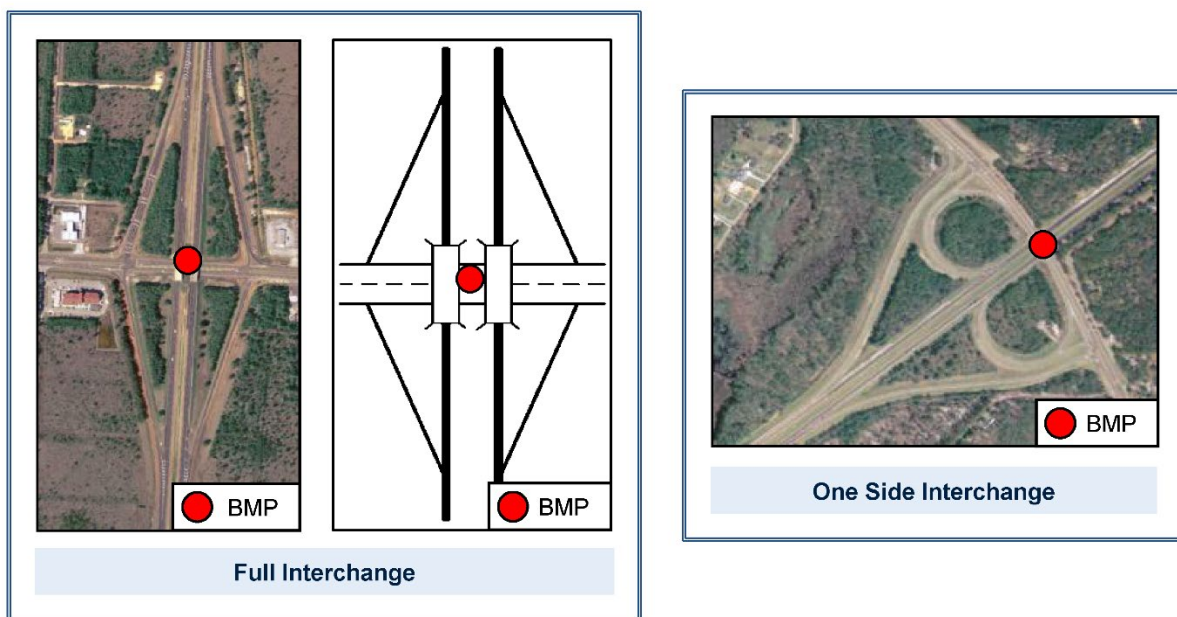


If Feature 122 RDACCESS is coded as either code 1-Full Control or 2-Partial Control, then Feature 252 also must be coded for these same milepoint ranges.

**Special Situations:** If two limited access facilities cross each other, then code an interchange and an exit number for each facility. For example, I-75 crosses I-10. Both I-75 and I-10 would have an interchange and exit number coded under each facility, since both facilities are limited access.

**Value for Interchange/Exit Number:** 4 Bytes: XXXX—Record the exit number and letter if applicable, referring to the examples above.

**Examples:** Exit location to be taken at the midpoint of bridge span or the interchange.



## INTERCHG | TYPE OF INTERCHANGE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		Planning, Maintenance, Work Program, Traffic Operations	All Principal arterials—interstate, freeways, expressways, and other limited access facilities. <sup>1</sup>	N/A	N/A

<sup>1</sup> This is the minimum requirement. Districts may choose to go beyond the minimum requirement and code Feature 252 on other types of roadways that are grade separated and are not limited access facilities.

**Definition/Background:** An interchange is a system of interconnecting roadways in conjunction with one or more grade separations, providing for the interchange of traffic between two or more roadways or highways on different levels.

**How to Gather this Data:** Record the code value that best describes the type of interchange. Code the location of this characteristic at the centerline of the interchange by obtaining the midpoint from an aerial. INTERCHG is coded once for each interchange, at the center of the primary crossroad. Type of interchange can be determined

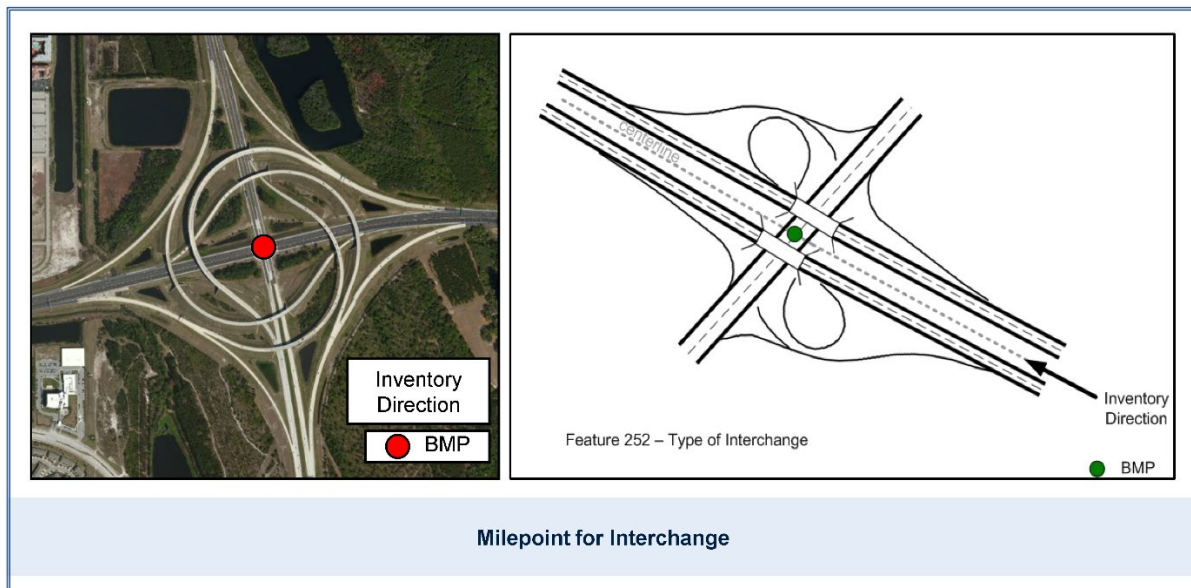


from viewing aerials. If type of interchange is coded for the roadway, then Feature 122 Access Control Type 1—Full Control should be coded for the limits of the interchanges.

If Feature 122 RDACCESS is coded as either code 1-Full Control or 2-Partial Control, then Feature 252 also must be coded for these same milepoint ranges.

**Special Situations:** If two limited access facilities cross each other, then code an interchange for each facility. For example, I-75 crosses I-10. I-75 would have a type of interchange coded and I-10 also would have a type of interchange coded.

Codes	Descriptions
01	Diamond
02	Partial Diamond
03	Trumpet
04	Y-Intersection
05	2 Quadrant Cloverleaf or Partial Cloverleaf
06	Quadrant Cloverleaf with Collector Road
07	4 Quadrant Cloverleaf
08	Direct Connection Design
09	Other
10	Diverging Diamond



## EXAMPLES



01: Diamond



02: Partial Diamond



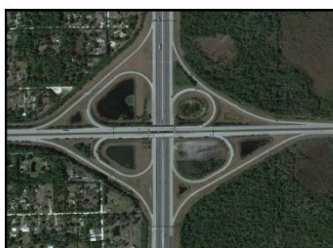
03: Trumpet



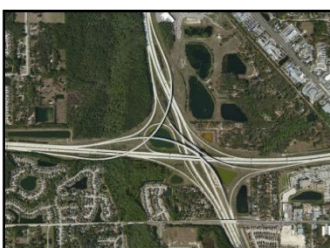
04: Y-Intersection



05: 2 Quadrant Cloverleaf or  
Partial Cloverleaf



07: 4 Quadrant Cloverleaf



09: Other



10: Diverging Diamond



## FEATURE 253

### RAILROAD CROSSINGS

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	No	No	Point	Yes	Yes
Responsible Party for Data Collection		FMO Office in collaboration with District Offices			

**Definition/Background:** Records the location, check digit, and crossing number. This is from the roadway perspective of where the railroad crosses the roadway.

### RRCROSNO | NATIONAL RR GRADE CROSSING NUMBER

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		Freight and Multimodal Operations (FMO) Office	All roadways.	N/A	N/A

**Definition/Background:** A 6-digit number assigned to the crossing.

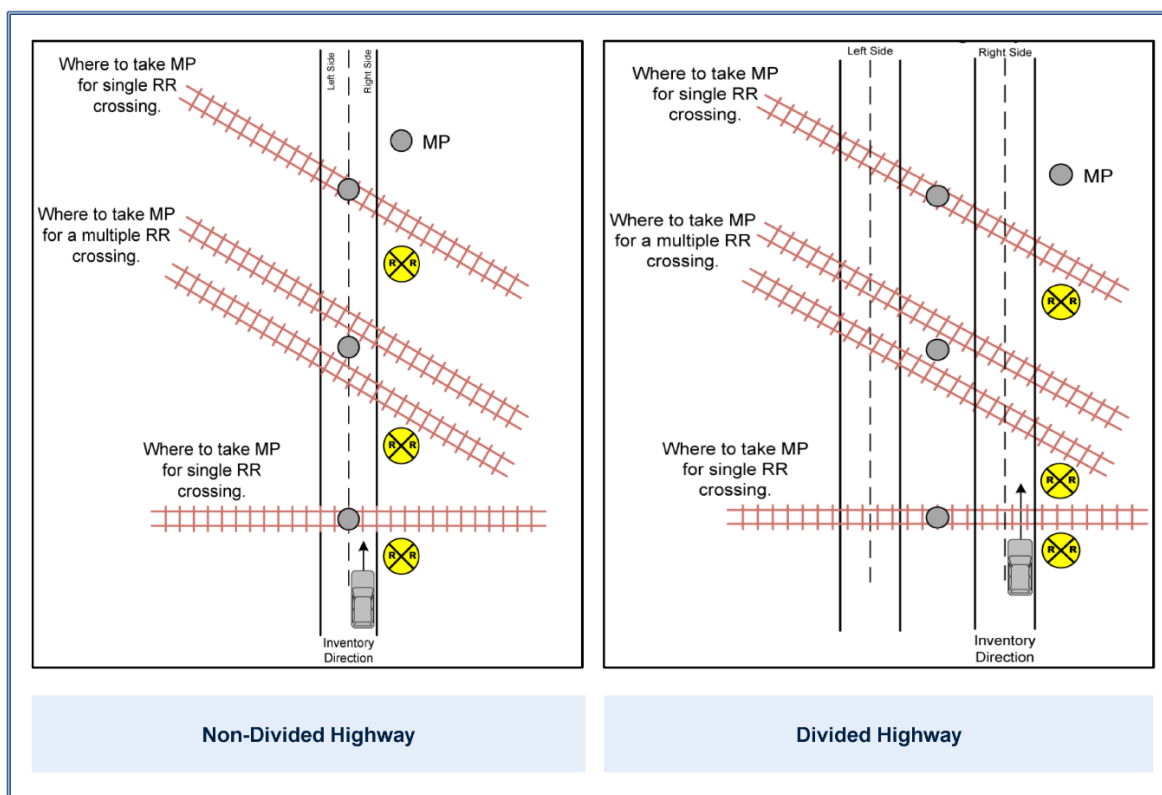
**Important When Gathering:** Only existing at-grade crossings should be coded in RCI.

**How to Gather this Data:** Record the 6-digit ID number generally found on a power box or crossing pole adjacent to the at-grade railroad crossing, do not include the alpha character.



zOn a divided highway, milepoints are located at the midpoint of the center track in the median. Driving on the right side of the roadway in the outside lane in the inventory direction, look left towards the median to collect the milepoint. Do not drive in the median to collect milepoints.

**Value for Crossing Number:** 6 Bytes: XXXXXX—Record 6-digit crossing number, do not include alpha character.



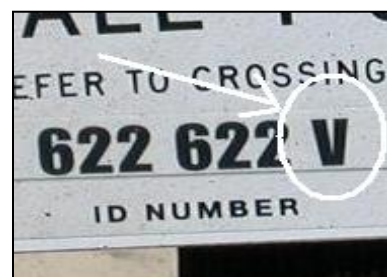
## CHKDIGIT | CHECK DIGIT

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		Freight and Multimodal Operations (FMO) Office	All roadways.	N/A	N/A

**Definition/Background:** Part of the railroad crossing number and is an alpha character at the end of the number. Only code at-grade crossings of railroads and roadways.

**How to Gather this Data:** Record the alpha character at the end of the crossing number.

**Value for Check Digit:** 1 Byte: X—Record alpha character



## FEATURE 256

### TURNOUTS

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
R/L	No	No	Total	No	Yes
Responsible Party for Data Collection		District Office of Maintenance			

**Definition/Background:** Dedicates access to a SR. This access may be private or commercial, and allows vehicles to enter or exit a building, house, garage, store, compound, or property. Turnouts with unofficial, not county maintained green signs, street signs should be counted as turnouts. Examples of unofficial street signs are the blue 911 street signs that are erected for emergency units to locate addresses.

Notes the number of turnouts along the roadway. In addition, the average width of the turnout should be noted along with the specific characteristic of the turnout. Average width refers to measurement of the throat of counted turnouts and paved will mean asphalt or concrete. Turnouts that allow access from a SR to communication towers or lighting structures should be included in RCI. Dedicated roadways and streets are not to be inventoried as turnouts.

For average width characteristics, only one width can be entered for each mile, and the width is the average for all driveways in that mile. For piped turnouts, use throat width, which is measured from end of pipe to end of pipe, including mitered ends. For non-piped turnouts, use actual through or travelway width. If each turnout is entered individually, the exact milepoint should be entered for each turnout. Turnout areas where mill material has been applied will continue to be inventoried as unpaved.

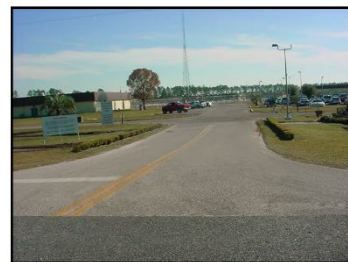
If the below characteristics are located at a rest area, ramp, or other applicable sub-section, they are to be inventoried against the applicable sub-section number.

#### TRNOTPNP | PAVED TURNOUTS WITHOUT PIPE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of paved turnouts without pipe along the roadway. Separate entries are required for the right and the left sides of the roadway.

**Value for Paved Turnouts without Pipe:** 3 Bytes: XXX



## TRNOTPPI | PAVED TURNOUTS WITH PIPE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:**  
 Code the number of paved turnouts with pipe along the roadway. Separate entries are required for the right and the left sides of the roadway.

**Value for Paved Turnouts with Pipe:** 3 Bytes: XXX

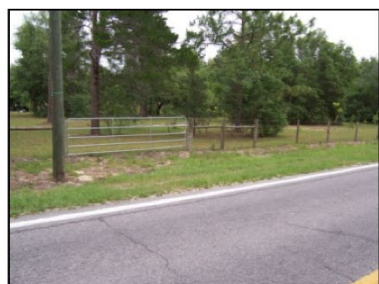
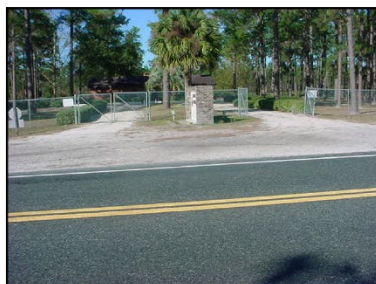


## TRNOTUNP | UNPAVED TURNOUTS WITHOUT PIPE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:**  
 Code the number of unpaved turnouts without pipe along the roadway. Separate entries are required for the right and the left sides of the roadway.

**Value for Unpaved Turnouts without Pipe:** 3 Bytes: XXX



**TRNOTUPI | UNPAVED TURNOUTS WITH PIPE**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:**

Code the number of unpaved turnouts with pipe along the roadway. Separate entries are required for the right and the left sides of the roadway.

**Value for Unpaved Turnouts with Pipe:**

3 Bytes: XXX

**WDTRNPNP | AVERAGE WIDTH TURNOUT, PAVED, NO PIPE**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the average width, to the nearest whole foot, of the paved turnout with no pipe. Separate entries are required for the right and the left sides of the roadway.

**Value for Average Turnout Width, Paved, without Pipe:** 3 Bytes: XXX

**WDTRNPPI | AVERAGE WIDTH TURNOUT, PAVED, WITH PIPE**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the average width, to the nearest whole foot, of the paved turnout with pipe. Separate entries are required for the right and the left sides of the roadway.

**Value for Average Turnout Width, Paved, with Pipe:** 3 Bytes: XXX

### DTRNUNP | AVERAGE WIDTH TURNOUT, UNPAVED, NO PIPE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the average width, to the nearest whole foot, of the unpaved turnout with no pipe. Separate entries are required for the right and the left sides of the roadway.

**Value or Average Turnout Width, Unpaved, without Pipe:** 3 Bytes: XXX

### WDTRNUPI | AVERAGE WIDTH TURNOUT, UNPAVED, WITH PIPE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the average width, to the nearest whole foot, of the unpaved turnout with pipe. Separate entries are required for the right and the left sides of the roadway.

**Value for Average Turnout Width, Unpaved, with Pipe:** 3 Bytes: XXX



## FEATURE 257

### CROSSTOVERS

Roadway Side		LRS Package	Feature Type	Interlocking	Secured
R/L	No	No	Point	No	Yes
Responsible Party for Data Collection		District Office of Maintenance			

**Definition/Background:** A crossover is a designated area that allows vehicles to access residences, businesses, commercial areas, and opposing roadways through a physically restrictive median.

Notes the length of crossovers.

#### CROVERLG | LENGTH OF CROSSOVER

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the length to the nearest whole foot of the crossover at each location. The center of the crossover will be used to obtain the beginning milepoint. Ending milepoint is not to be entered. All crossovers are to be included on the right side of the roadway.

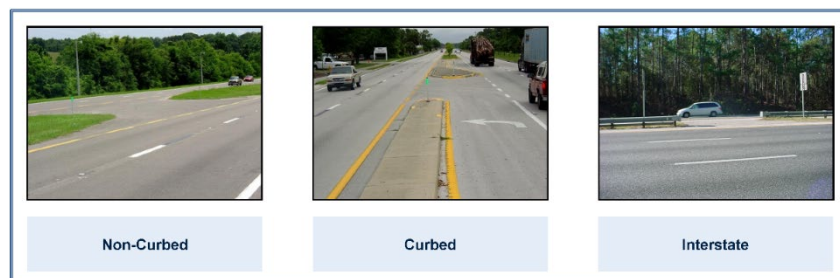
*For non-curbed and interstate crossovers:* Measure the narrowest width from the pavement edge at one radius to the opposing pavement edge and radius.

*For curbed crossovers:* Measure the narrowest width from the face of curb (bull nose) to the opposing face of curb (bull nose).

Length refers to the narrowest width. Roadway intersections are not to be inventoried as crossovers. If the above characteristic is located at a rest area, ramp, or other applicable sub-section, it is to be inventoried against the applicable sub-section number.

Locations that are not considered as intersections (Feature 251) should be included in the crossover inventory.

**Value for Crossover Length:**  
4 Bytes: XXXX



## FEATURE 258

### STRUCTURES

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C/R/L	No	No	Length	No	Yes
Responsible Party for Data Collection		District Planning			

### BOXCULNO | BOX CULVERT NUMBER

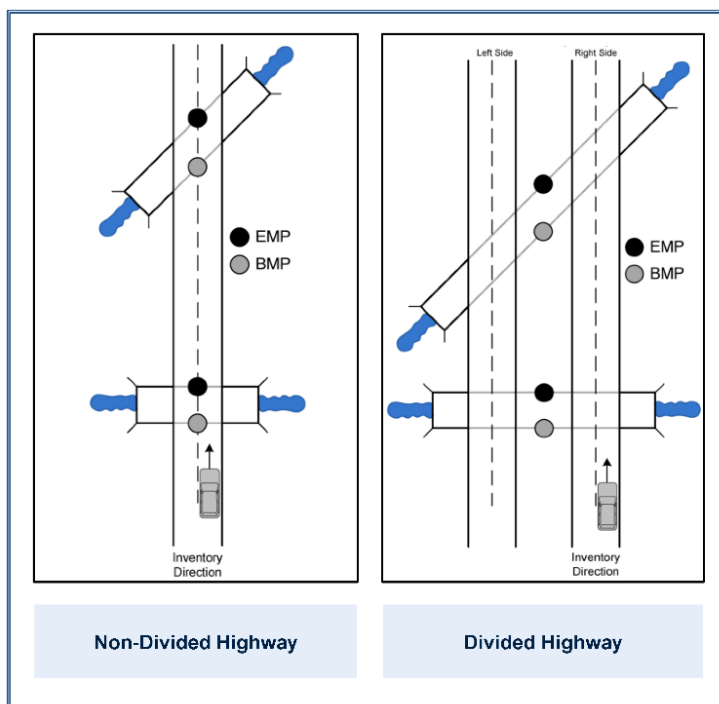
HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
4		TDA, Districts, Work Program, Maintenance, Structures and Safety Office	All roadways.	N/A	N/A

**Definition/Background:** Box culverts are embedded in the ground. You never drive directly on top of it. If you are driving on top of it, then it is a bridge, therefore collect it under BRIDGENO.

**How to Gather this Data:** Record the box culvert number, generally found on the right end of the wall.

On a divided highway, milepoints are located in the median. Driving on the right side of the roadway in the outside lane in the inventory direction, look left towards the median to collect the milepoint. Do not drive in the median to collect milepoints.

**Special Situations:** If the total opening measured at the extreme ends for multiple boxes is 20 feet or more, then record the box culvert structure number. If the number is not posted on the top of the right end wall, the structures office in each District can provide the number.



**Value for Box Culvert Number:** 6 Bytes: XXXXXX—Record structure number



## BRIDGENO | BRIDGE NUMBER

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
4		TDA, Districts, Work Program, Maintenance, Structures and Safety Office	All roadways.	N/A	N/A

**Definition/Background:** 335.074, *F.S.* defines bridges as the following: Bridges are defined as having an opening measured along the center of the roadway of more than 20 feet between:

1. Undercopings of the abutments or
2. Spring lines of arches or
3. Extreme ends of openings for multiple boxes



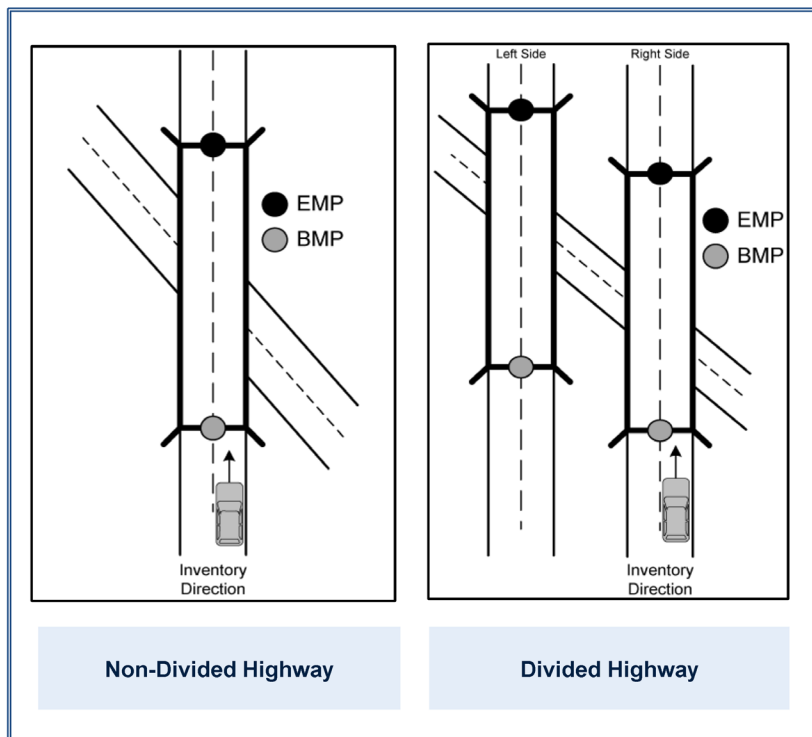
“and those bridges consisting of multiple pipes where the clear distance between openings is less than half of the smaller contiguous opening.”

**How to Gather this Data:** If you can drive over this bridge on the roadway being inventoried, and it is not a box culvert spanning less than 20 feet along the direction of travel, code the bridge number shown on the structure.

**Special Situations:** If you are on the second level of a three or more level interchange, code the bridge you are driving on as the bridge number.

**Value for Bridge Number:** 6

Bytes: XXXXXX—Record structure number



## TUNNELNO | TUNNEL NUMBER

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
4		TDA, Districts, Work Program, Maintenance, Structures and Safety Office	All roadways.	N/A	N/A

**Definition/Background:** Tunnels are enclosed (except at an entrance and exit) structures or passageways which go underground, under surface, below a roadway or waterway.

Required For: All roadways

**How to Gather this Data:** Record the tunnel number and the facility crossed (FACCROSS).

Reference Structures Office PONTIS Report for structure design type 18, if necessary for the tunnel number.

**Value for Underpass Number:** 6 Bytes: XXXXXX—Record the structure number for the tunnel.



Henry E. Kinney Tunnel  
(Ft. Lauderdale)



Port of Miami Tunnel  
(Miami)

## UNDPASNO | UNDERPASS NUMBER

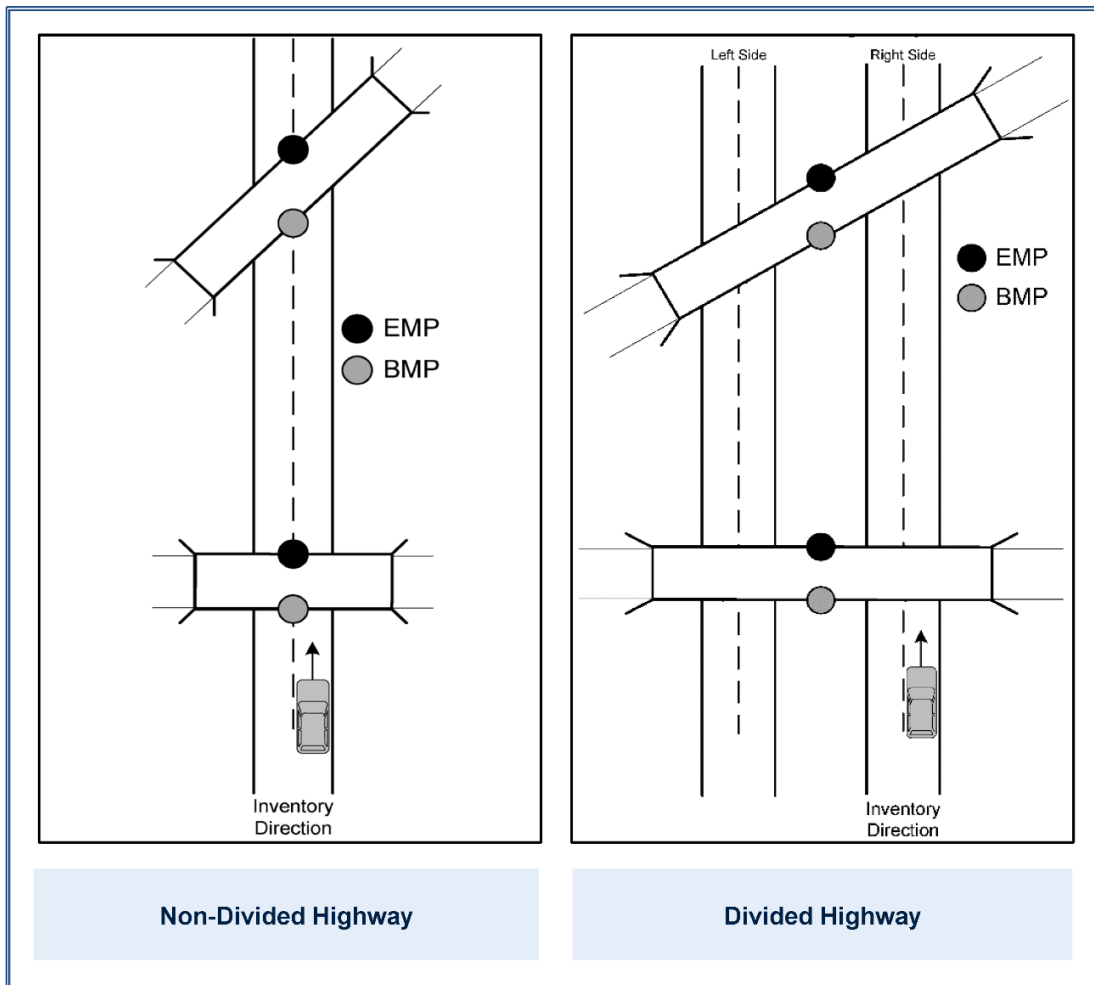
HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		TDA, Districts, Work Program, Maintenance, Structures and Safety Office	All roadways.	N/A	N/A

**How to Gather this Data:** Record the underpass number. If you can drive under a structure while on the roadway being inventoried, code the overhead structure as an underpass.

On a divided highway, milepoints are located in the median. Driving on the right side of the roadway in the outside lane in the inventory direction, look left towards the median to collect the milepoint. Do not drive in the median to collect milepoints.



**Value for Underpass Number:** 6 Bytes: XXXXXX—Record 6-digit underpass number



## FACCROSS | FACILITY CROSSED

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		TDA, Districts, Work Program, Maintenance, Structures and Safety Office	All structures.	N/A	N/A

**Definition/Background:** This is the name of the roadway, railroad, body of water, or general description of the facility that crosses under or over a structure.

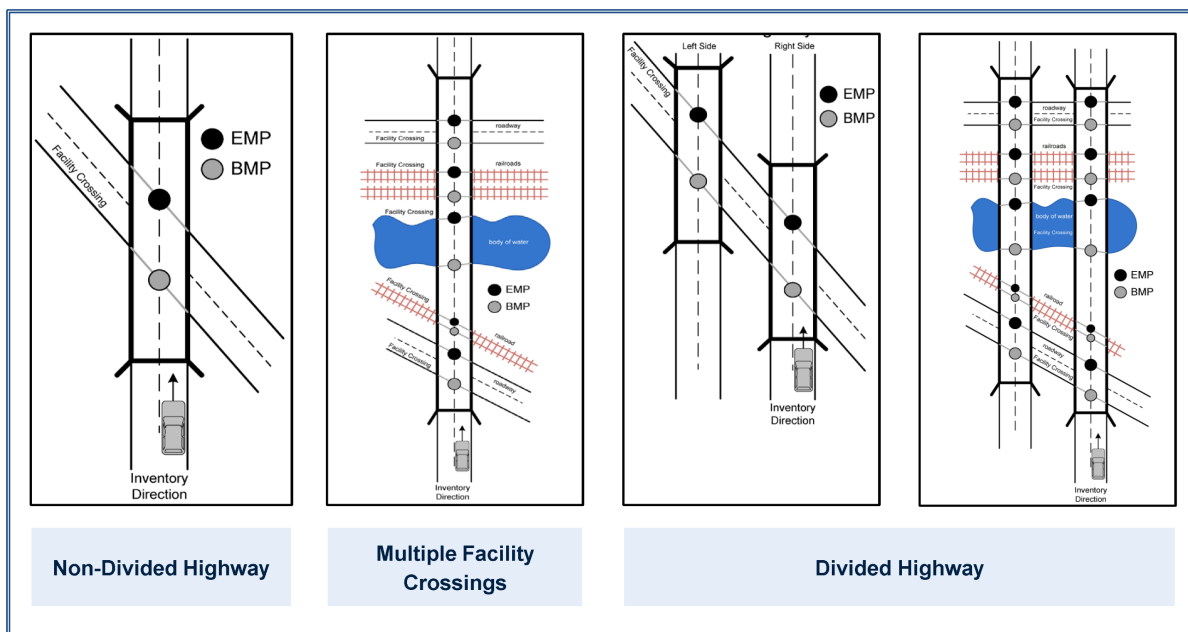
The intent of this characteristic is not to record the dimensions of the facilities being crossed. It is to reflect the names of the facilities and their approximate locations only.



**How to Gather this Data:** Code the names of the facilities, such as roadway, railroad, body of water, or general description of the facility which cross under or over the structure. Collect the BMP and EMP where the facility exists, not at the same BMP and EMP of the structure.

**Special Situations:** If the facility is not named, code as “unnamed.” Only one facility is represented for a given milepoint range. RCI does not allow overlapping milepoints for this characteristic.

**Value for Name of Facility Crossed:** 20 Bytes: XXXXXXXXXXXXXXXXXXXXXXXX



## FEATURE 271

### GUARDRAIL

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
R/L	No	No	Total	No	Yes
Responsible Party for Data Collection		District Office of Maintenance			

**Definition/Background:** Guardrails, handrails, and barrier walls are installed to guide vehicular and/or pedestrian traffic away from various hazards in and adjacent to the travel way and where slopes exceed 3:1. Notes the length of various types of guardrail maintained.

Do not duplicate sub-section inventories. Boardwalk or wood sidewalks used to connect two concrete sidewalks over a ditch or obstacle should be coded in RCI under Feature 271 for handrails and Feature 217 for sidewalks.

If the below characteristics are located at a rest area, ramp, or other applicable sub-section, they are to be inventoried against the applicable sub-section number.

\*The additional rail, rub rail beneath the standard or double guardrail will be coded under SPCGRAIL Miscellaneous Guardrail.

**Special Situation:** In the image to the right, white PVC handrail starts being recorded as miscellaneous guardrail where it is attached to the sidewalk area. The rest of the white PVC, found behind the sidewalk in the grassed area, should be considered Feature 272 Fencing and recorded under OTHERFCS.



## BARRWALL | BARRIER WALL LENGTH

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the length, to the nearest thousandth of a mile, of barrier wall along the roadway. Do not inventory bridge barrier walls. Separate entries are required for the right and left sides of the roadway.

**Value Barrier Wall Length:** 4 Bytes: X.XXX



## DBLGRAIL | DOUBLE FACE GUARDRAIL LENGTH

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the length, to the nearest thousandth of a mile, of double-faced guardrail along the roadway. Double-faced thrie beam guardrail may be included. Separate entries are required for the right and left sides of the roadway.

**Value for Double Face Guardrail Length:** 4 Bytes: X.XXX



## SPCGRAIL | MISCELLANEOUS GUARDRAIL LENGTH

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the length, to the nearest thousandth of a mile, of miscellaneous, i.e., ribbon type, concrete, wood, or aluminum, along the roadway. Special type tubing handrails, non-bridge, and rub rail (Index 400) may be included. Separate entries are required for the right and left sides of the roadway.

**Value for Misc. Guardrail Length:** 4 Bytes: X.XXX





## STDGRAIL | STANDARD GUARDRAIL LENGTH

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the length, to the nearest thousandth of a mile, of standard guardrail along the roadway. Single faced three beam guardrail may be included. Separate entries are required for the right and left sides of the roadway.

**Value for Standard Guardrail Length:** 4 Bytes: X.XXX



## FEATURE 272

### FENCING

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
R/L	No	No	Length	No	Yes
<b>Responsible Party for Data Collection</b>		District Office of Maintenance			

**Definition/Background:** A fence is a structure serving as an enclosure, barrier, or boundary. For FDOT purposes, it is usually made of posts joined by various types of wire. Fencing provides limited access for wildlife and farm animals to the interstates. Also, fencing acts as a protective barrier to hazardous areas such as detention or retention ponds, borrow pits, or other areas not meant for the public to access. Fencing also will be found around rest areas.

This feature notes the type of fencing that is maintained along the roadway. One type of fence will be noted for a single row of fence posts. Fence for borrow pits, sediment basins, and retention areas will be recorded to the nearest section or sub-section. Fences are recorded in multiples of 4 foot heights. 8 feet high = (2) 4 foot heights and 12 feet high = (3) 4 foot heights. A 6 feet high fence would be entered as (1) 4 foot height.

If the length of the fence will not fit in the milepoint for the sub-section, then use additional multiples of height to compensate. Barbed wire on top of fences can be included in the measurement of the height of the fence. If the below characteristics are located at a rest area, ramp, or other applicable sub-section, they are to be inventoried against the applicable sub-section number.

### CHNLKFCS | NUMBER OF CHAIN LINK FENCES

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of chain link fences along the roadway. Separate entries are required for the right and the left sides of the roadway.

**Value for Number of Chain Link Fences:** 1 Byte: X





### MISCFCS | LENGTH OF MISCELLANEOUS FENCES

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** This characteristic's milepoint will be referenced from the closest state-maintained roadway section. Code the length of miscellaneous fences to the nearest foot for borrow pits, retention areas, sediment basins, rest areas, or other non-roadway areas. Separate entries are required for the right and the left sides of the roadway.

**Value for Length of Misc. Fences:** 5 Bytes: XXXXX



## OTHERFCS | NUMBER OF OTHER TYPES OF FENCES

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of other types of fences along the roadway. Glare screens may be recorded here. *To be counted as an individual fence, a barbed wire fence must have at least 4 strands of wire attached to the post.* Separate entries are required for the right and the left sides of the roadway.

**Value for Number of Other Types of Fences:** 1 Byte: X



Glare Screens

## WOVENFCS | NUMBER OF WOVEN WIRE FENCES (AKA HOG WIRE)

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of woven wire fences along the roadway. Separate entries are required for the right and the left sides of the roadway.

**Value for Number of Woven Wire Fences:** 1 Byte: X



## FEATURE 273

### CABLE BARRIERS

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
R/L	No	No	Length	Yes	Yes
Responsible Party for Data Collection		District Office of Maintenance			

**Definition/Background:** Cable Barriers are used to guide traffic away from various hazards in and adjacent to the travel way and where slopes exceed 3:1.

#### CABLRTY | CABLE BARRIER TYPE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	2-right or 3-left	N/A

**How to determine Begin and End of this Data:** From the beginning milepoint of where the cable barrier physically begins to the ending milepoint of where the cable barrier ends. Break for mile increments.

**How to Gather this Data:** Code the type of cable barrier that is contiguous. Separate entries are required for right, left and median islands. Cable barriers within the median shall be recorded offset left. If there is a break for a crossover (see feature 257) then code the applicable beginning and ending milepoints at the crossover.

Codes	Descriptions
01	Brifen (4 wires)
02	Cass (3 wires)
03	Gibraltar (3 or 4 wires)
04	Nu-Cable (3 or 4 wires)
05	Safence (3 or 4 wires)
99	Other

## EXAMPLES



## CABLWIRE | NUMBER OF CABLE WIRES

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	2-right or 3-left	N/A

**How to Gather this Data:** Code the number of cable wires present on the associated cable barrier. Separate entries are required for right, left and median islands. Cable barriers within the median shall be recorded offset left.



## FEATURE 275

### MISCELLANEOUS CONCRETE STRUCTURES

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
R/L	No	No	Total	No	Yes
Responsible Party for Data Collection		District Office of Maintenance			

**Definition/Background:** Concrete structures are used for safety and preservation of our roadway systems.

They note the different types of concrete structures, i.e., retaining walls, seawalls, rip-rap structures, and so forth, and the length or face area of the structure.

If the below characteristics are located at a rest area, ramp, or other applicable sub-section, they are to be inventoried against the applicable sub-section number.

#### NOISBARR | NOISE BARRIER WALL

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the total square yards to the nearest square yard of the noise barrier wall within each one-mile increment. Separate entries are required for right and left sides of the roadway.

**Value for Noise Barrier Wall Square Yardage:** 4 Bytes: XXXX



## RETWALL | RETAINING WALL LENGTH

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the length of the retaining wall to the nearest foot within each one-mile increment. Separate entries are required for right and left sides of the roadway.

**Value for Retaining Wall Length:** 4 Bytes: XXXX



## SEAWALL | SEAWALL LENGTH

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the length of the seawall to the nearest foot within each one-mile increment. Separate entries are required for right and left sides of the roadway.

**Value for Seawall Length:** 4 Bytes: XXXX



**SLOPEPAV | SLOPE PAVING AREA CONCRETE**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the total square yards of concrete to the nearest square yard for the concrete slope within each one-mile increment. Separate entries are required for right and left sides of the roadway.

**Value for Concrete Slope Paving Area Square Yardage:** 4 Bytes:  
XXXX



## SLOPERIP | SLOPE PAVING AREA RIP-RAP

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the total square yards to the nearest square yard for the rip-rap slope paving within each one-mile increment. Separate entries are required for right and left sides of the roadway.

**Value for Rip-Rap Slope Paving Area Square Yardage:** 4 Bytes: XXXX





## Operational Features

These features are collected and used for operational information along the travelway.

### FEATURE 311

#### *SPEED LIMITS*

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C/R/L	Yes	No	Length	Yes	Yes
<b>Responsible Party for Data Collection</b>		District Traffic Operations Office is responsible for collecting and maintaining this information for all designated roadways Active on the SHS. District RCI Staff is responsible for collecting and maintaining this information for all roadways Active Off the SHS with NHS or SIS designations and for all HPMS off-system samples. Effective March 2017			

**Definition/Background:** Provides information on the posted speed on HPMS sample sections. It is used in investment analysis to estimate running speed and for other purposes, such as delay estimation. See *Section 316.183, F.S. as well as Procedure No. 750-010-002.*



#### DTESZAPP | DATE SPEED ZONE APPROVED

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Planning, HPMS, MPOs, Performance Management, and Safety Office	All roadways. (Effective September 2019)	N/A	N/A

**How to Gather this Data:** The actual date that the speed zone was approved by the Secretary is entered in the value field.

**Value Date Speed Zone Approved:** MM/DD/YYYY—Date format

#### DTESZIMP | DATE SPEED ZONE IMPLEMENTED

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Planning, HPMS, MPOs, Performance Management, and Safety Office	All roadways. (Effective September 2019)	N/A	N/A

**How to Gather this Data:** The actual date that the speed zone was implemented is entered in the value field.

**Value for Date Speed Zone Implemented:** MM/DD/YYYY—Date format

## MAXSPEED | MAXIMUM SPEED LIMIT

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
14		Planning, HPMS, MPOs, Performance Management, and Safety Office	All roadways. (Effective September 2019)	N/A	N/A

**How to Gather this Data:** Enter the maximum speed for the roadway section in the value field.

**Special Situations:** On all unsigned streets and highways, the legal maximum speed limit for all vehicles is 30 mph in business or residential areas, and 55 mph in all other locations, with two exceptions:

1. A county or municipality may set a maximum speed limit of 20 or 25 mph on local streets or highways, following an appropriate study.
2. The minimum speed limit on all interstate highways with at least four lanes is 40 mph and 50 mph when the posted speed limit is 70 mph.

**Value for Max Speed Limit:** 2 Bytes: XX—Record the 2-digit number



## MINSPEED | MINIMUM SPEED LIMIT

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Planning, HPMS, MPOs, Performance Management, and Safety Office	All roadways. (Effective September 2019)	N/A	N/A

**How to Gather this Data:** Enter the minimum speed for this roadway section in the value field.

**Value Minimum Speed Limit:** 2 Bytes: XX—Record the 2-digit number



## FEATURE 312

### TURNING RESTRICTIONS

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C/R/L	Yes	No	Point	Yes	Yes
<b>Responsible Party for Data Collection</b>		District Traffic Operations Office is responsible for collecting and maintaining this information for all designated roadways Active on the SHS.			

#### DTETMAPP | DATE TURNING MOVEMENT APPROVED

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Planning, HPMS, MPOs, Performance Management, and Safety Office	All roadways.	N/A	N/A

**How to Gather this Data:** The actual date that the turning restriction was approved by the Secretary is entered in the value field.

**Value for Date Turning Movement Approved:** MM/DD/YYYY—Date format

#### DTETMIMP | DATE TURNING MOVEMENT IMPLEMENTED

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Planning, HPMS, MPOs, Performance Management, and Safety Office	All roadways.	N/A	N/A

**How to Gather this Data:** The actual date that the turning restriction was implemented is entered in the value field.

**Value for Date Turning Movement Implemented:** MM/DD/YYYY—Date format

#### LMTRSTRC | LIMITED TURN RESTRICTION TIME

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Planning, HPMS, MPOs, Performance Management, and Safety Office	All roadways.	N/A	N/A

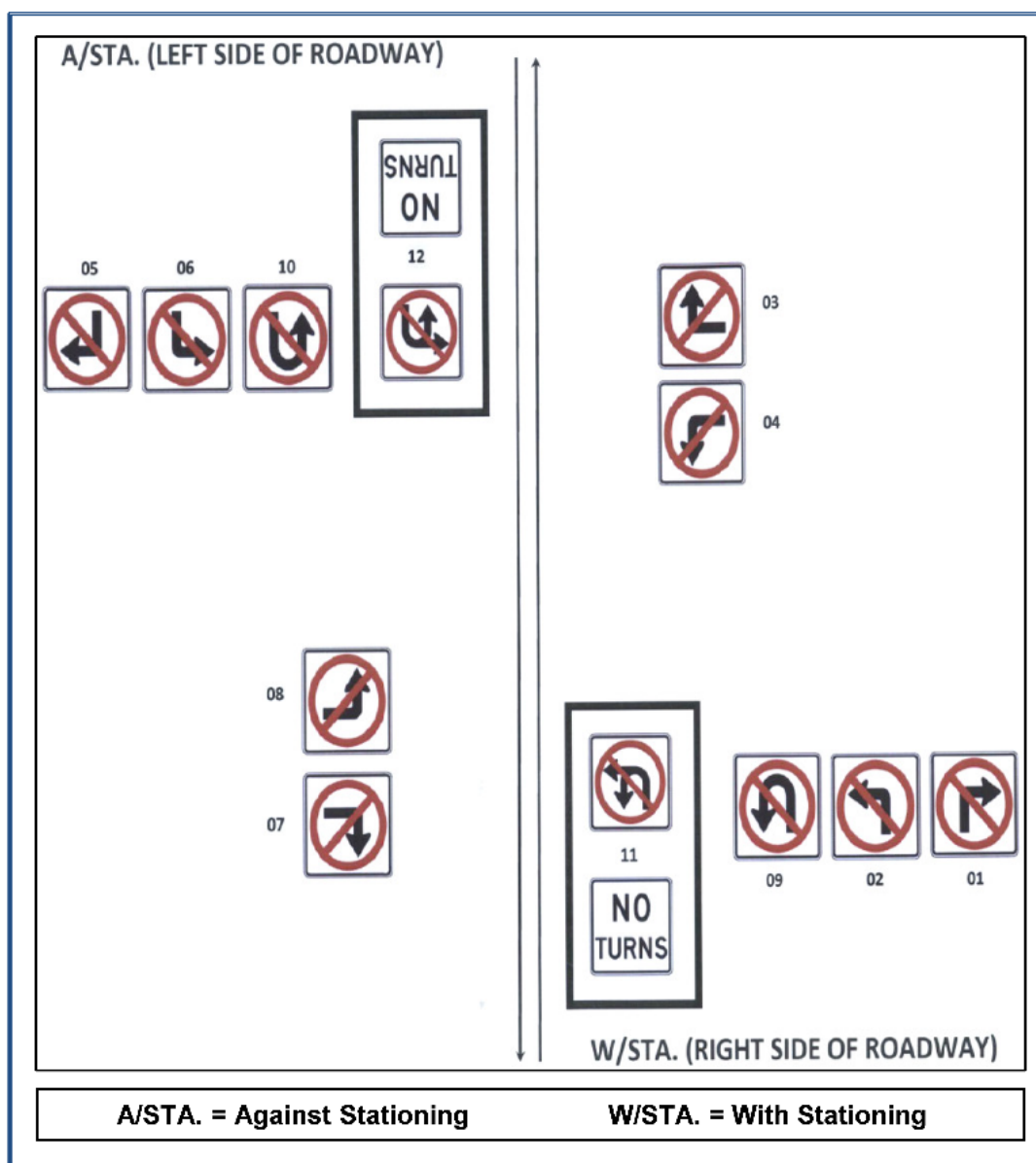
**How to Gather this Data:** The actual time that the turn restriction is in effect is entered in the value field.

**Value for Limited Turn Restriction Time:** 8 Bytes: XXXXXXXX—The time format entered shall be military time (e.g., 7:00 a.m. to 9:00 a.m. = 07000900)

## TURNMOVE | TURNING MOVEMENT RESTRICTION

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Planning, HPMS, MPOs, Performance Management, and Safety Office	All roadways.	N/A	N/A

**How to Gather this Data:** Enter the appropriate turning restriction code in the value field.



Codes	Descriptions	Stationing
01	No right off roadway	With Stationing
02	No left off roadway	With Stationing
03	No right onto roadway	With Stationing
04	No left onto roadway	Against Stationing
05	No right off roadway	Against Stationing
06	No left off roadway	Against Stationing
07	No right onto roadway	Against Stationing
08	No left onto roadway	With Stationing
09	No U-turn	With Stationing
10	No U-turn	Against Stationing
11	No turns	With Stationing
12	No turns	Against Stationing

## FEATURE 313

### *PARKING RESTRICTIONS*

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C/R/L	Yes	No	Length	Yes	Yes
Responsible Party for Data Collection		District Traffic Operations Office			

**Responsible Party for Data Collection:** District Traffic Operations Office is responsible for collecting and maintaining this information for on-system roadways.

#### DTEPKAPP | DATE PARKING APPROVED

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Traffic Operations and Safety Office	All Active On roadways.	N/A	N/A

**How to Gather this Data:** The actual date that the parking restriction was approved by the Secretary is entered in the value field.

**Value for Date Parking Approved:** MM/DD/YYYY—Date format

#### DTEPKIMP | DATE PARKING RESTRICTION IMPLEMENTED

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Traffic Operations and Safety Office	All Active On roadways.	N/A	N/A

**How to Gather this Data:** The actual date that the parking restriction was implemented is entered in the value field.

**Value for Date Parking Restriction Implemented:** MM/DD/YYYY—Date format

#### PKRSTIME | PARKING RESTRICTION TIME

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Traffic Operations and Safety Office	All Active On roadways.	N/A	N/A

**How to Gather this Data:** The actual time that the parking restriction is in effect is entered in the value field.

**Value for Parking Restriction Time:** 8 Bytes: XXXXXXXX—The time format entered shall be military time (e.g., 7:00 a.m. to 9:00 a.m. = 07000900)

### TYPEPARK | TYPE OF ROADWAY PARKING

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Traffic Operations and Safety Office	All Active On roadways.	N/A	N/A

**How to Gather this Data:** Enter the appropriate type of roadway parking code in the value field.

Codes	Parking
0	Highway Type
1	No Parking
2	Curb Both
3	Angle Both
4	Curb One Side
5	Angle One Side
6	Curb One/Angle One
7	None—Curb Side
8	Curb—Curb Side
9	Angle—Curb Side

## FEATURE 315

### *TSMO PROJECTS (PENDING APPROVAL)*

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	Yes	No	Length	No	Yes— TSM&O
<b>Responsible Party for Data Collection</b>		District Traffic Operations Office			

**Definition/Background:** This feature reflects Transportation Management and Operations (TSM&O) projects programmed along the defined segment. Feature created—July 2019.

**Owning Office:** TSM&O

#### **TSMOPRDT | DATE ACTIVE (OR POTENTIALLY) (PENDING APPROVAL)**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
NA	NA	District transportation planners, programmers, designers, consultants, various industries; benefits users of SLDs	On or off state highways, NHS, and SIS.	N/A	N/A

**How to Gather this Data:** The date that the Potential or Active Project is expected to be open.

**Value for Date Parking Approved:** MM/DD/YYYY—Date format

#### **TSMOPRCD | TSM&O PROJECT CODE (PENDING APPROVAL)**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
NA	NA	Transportation planners, programmers, designers, consultants, various industries; benefits users of SLDs	On or off state highways, NHS, and SIS.	N/A	N/A

**How to Gather this Data:** Enter the appropriate type of roadway parking code in the value field.

Codes	Descriptions	Additional Information
<b>01</b>	TSMN	ACTIVE TSM&O PROJECT
<b>02</b>	TSMP	POTENTIAL TSM&O PROJECT



## FEATURE 320

### MILE MARKER SIGNS

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C/R/L	Yes	No	Point	Yes	Yes
Responsible Party for Data Collection		District Planning			

### MILEMARK | MILE MARKER SIGN

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		Planning, and Safety Office	All interstate, tolled or non-tolled expressway facilities, and U.S. Routes.	N/A	N/A

**Definition/Background:** Records the location of mile marker signs posted along the roadway.

**How to Gather this Data:** Collect and enter the number displayed on the mile marker. One decimal place is provided for coding mile markers located at 1/10<sup>th</sup> of a mile increment.

**Value for Mile Marker Sign:** 4 Bytes: XXX.X—Record 4-digit mile marker number

### EXAMPLES



## FEATURE 322

### SIGNALS

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C/R/L	Yes	No	Point	Yes	Yes
Responsible Party for Data Collection		District Traffic Operations Office is responsible for collecting and maintaining this information for all designated roadways Active on the SHS.			

*Note: Some characteristics have been created to assist districts with their specific traffic operations data collection needs.*

*\* Will not be included in a QAR and can be used at the discretion of the District Traffic Operations Engineer.*

### MAINTAGC | MAINTAINING AGENCY NAME

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Traffic Operations and Safety Office	All Active On roadways.	N/A	N/A

**How to Gather this Data:** Enter the name of the agency that maintains the signal.

**Value for Maintaining Agency Name:** 20 Bytes: XXXXXXXXXXXXXXXXXXXXXXXX

### SDESTRET | SIDE STREET NAME

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Traffic Operations and Safety Office	All Active On roadways.	N/A	N/A

**How to Gather this Data:** Enter the name of the intersecting side street.

**Value for Side Street Name:** 20 Bytes: XXXXXXXXXXXXXXXXXXXXXXXX

### SIGNALID | SIGNAL CABINET ID NUMBER

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Traffic Operations and Safety Office	All Active On roadways.	N/A	N/A

**How to Gather this Data:** A district assigned identification number for a signal cabinet.

**Value for Signal Cabinet ID Number:** 6 Bytes: XXXXXX

**SIGNALNC | NON-COUNTED SIGNAL**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Traffic Operations and Safety Office	All Active On roadways.	N/A	N/A

**How to Gather this Data:** A non-counted signal type characteristic is used when a signalized intersection consists of two state roads. The roadway that has a higher AADT should be considered the major street and recorded under the SIGNALTY characteristic. The intersecting roadway that has a lower AADT is considered the minor street and recorded under this SIGNALNC characteristic. Choose the code to describe the type of non-counted signal.

Codes	Descriptions
01	Intersection Control Beacon
02	Intersection Control Signal
03	Mid-Block Pedestrian Control

**SIGNALTY | TYPE OF TRAFFIC SIGNAL**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Traffic Operations and Safety Office	All Active On roadways.	N/A	N/A

**How to Gather this Data:** Choose the code to describe the traffic signal type.

Codes	Descriptions
01	Intersection Control Beacon
02	Intersection Control Signal
03	Mid-Block Pedestrian Control
04	Emergency Signal
05	Intersection Control at School

## SIGOPDTE | DATE SIGNAL OPERATIONAL

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Traffic Operations and Safety Office	All Active On roadways.	N/A	N/A

**How to Gather this Data:** The actual date that the traffic signal became operational is entered in the value field.

**Value for Date Signal Operational:** MM/DD/YYYY—Date format

## SIGSTRCT | TYPE OF SIGNAL STRUCTURE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Traffic Operations and Safety Office	All Active On roadways.	N/A	N/A

**How to Gather this Data:** Choose the code to describe the type of signal structure.

Codes	Descriptions
01	Mast Arm
02	Wood Strain Pole
03	Concrete Strain Pole
04	Steel Strain Pole

## TYPECABL | TYPE OF CABLE CONNECTION

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Traffic Operations and Safety Office	All Active On roadways.	N/A	N/A

**How to Gather this Data:** Choose the code to describe the type of traffic signal cable connection.

Codes	Descriptions
01	Single Point Connection
02	Two Point Connection

**FEATURE 323***SCHOOL ZONES*

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C/R/L	Yes	No	Point	Yes	Yes
<b>Responsible Party for Data Collection</b>		District Traffic Operations Office is responsible for collecting and maintaining this information for all designated roadways Active on the SHS.			

**SCHLNAME | SCHOOL NAME**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Traffic Operations and Safety Office	All Active On roadways.	N/A	N/A

**How to Gather this Data:** Enter the name of the school within the school zone.

**Value for School Name:** 20 Bytes: XXXXXXXXXXXXXXXXXXXXXXXX



## SCHSPED | SCHOOL SPEED ZONE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Traffic Operations and Safety Office	All Active On roadways.	N/A	N/A

**How to Gather this Data:** Enter the school zone speed limit itself.

**Value School Speed Zone:** 2 Bytes: XX



## FEATURE 326

### TRAFFIC MONITORING SITES

Roadway Side		LRS Package	Feature Type	Interlocking	Secured
C	Yes	No	Point	Yes	Yes
Responsible Party for Data Collection		District Traffic Data Section			

Traffic Monitoring Sites are placed at strategic locations to develop homogeneous Annual Average Daily Traffic (AADT).



### TRFSTANO | TRAFFIC STATION NUMBER

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		Transportation planners, programmers, designers, consultants, various industries; benefits users of SLDs	On or off state Highways, NHS, SIS, and ramps for limited access facilities associated with interchanges.	N/A	N/A

**Definition/Background:** Provides the traffic count station number. It is populated in RCI for the benefit of users of SLDs. It provides six characters for each traffic count station. The first two digits of the number refer to the county, the last four digits refer to the site number for a total of six digits.

**How to Gather this Data:** The TDA's Traffic Data Section is responsible for the entry of this characteristic. These numbers are assigned in the TCI Database, and a link is established between TCI and RCI to automatically update this characteristic. Do not update this characteristic in RCI.



The traffic count station number is assigned in the TCI database by the central or district office technician in accordance with guidelines provided in the Traffic Monitoring Handbook.

**Value for Traffic Station Number:** 6 Bytes: XXXXXX—Record the 2-digit county and the 4-digit site number.






## TRSTATYP | TRAFFIC STATION TYPE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		Transportation planners, programmers, designers, consultants, various industries; benefits users of SLDs	On or off state highways, NHS, SIS, and ramps for limited access facilities associated with interchanges.	N/A	N/A

**Definition/Background:** Provides the traffic monitoring site (TMS) type. This characteristic is populated in RCI for the benefit of users of SLDs. If the site is damaged through any roadway work, it can be easily identified and reconstructed. This is a tied characteristic that may be associated with Feature 251. This includes the four different types of TMSs of telemetered traffic monitoring site (TTMS), portable traffic monitoring site (PTMS), road tubes, and inactive sites.



**How to Gather this Data:** These sites and their locations are assigned in the TCI Database. A link is established between TCI and RCI to automatically update this characteristic. Do not update this characteristic in RCI. TTMS, PTMS, road tubes, and inactive sites are assigned in the TCI database by TDA or the district office technician in accordance with guidelines provided in the Traffic Monitoring Handbook.

Codes	Traffic Site Types	SLD Symbols	Symbols on Straight Line Diagram
<b>I</b>	Inactive		Circle w/diagonal stripe
<b>P</b>	PTMS (non-continuous)		Circle
<b>R</b>	Road Tube		Triangle
<b>T</b>	TTMS (continuous)		Square
<b>V</b>	Virtual Count Station		Diamond



## FEATURE 330

### TRAFFIC FLOW BREAK STATION

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	No	No	Length	Yes	Yes
Responsible Party for Data Collection		District Traffic Data Section			

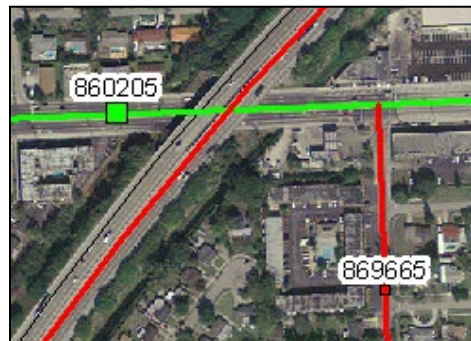
**Definition/Background:** Describes the limits of a homogeneous traffic segment and the station from which the traffic data is obtained.

#### FLWBRKID | COUNT STATION ASSIGNED TO BREAK

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		HPMS, TDA, traffic data collectors, others using traffic data	All state highways, NHS roadways, SIS roadways, all managed lanes, all roadways functionally classed higher than local, and ramps for limited access facilities associated with interchanges. Effective September 2019.	N/A	N/A

**Definition/Background:** Describes the limits, beginning and ending milepoints, of a traffic segment, and the station from which the traffic data is obtained. The beginning and ending milepoints should be tied to Feature 251 or possibly other physical features in the future.

**How to Gather this Data:** The District Traffic Data Section is responsible for assigning FLWBRKID's for each TMS. The first two bytes will be the county (CONTYDOT) and the last four bytes will be the site number, which comprise the 6-digit traffic count station number (TRSTATNO) for the traffic count station in this segment. This data is updated annually by TDA during end-of-year processing.



Any interim updates should be performed by District Traffic Section.

**Value for Count Station Assigned to Break:** 6 Bytes: XXXXXX—Record the 2-digit county and the 4-digit site number

## TRFBRKCD | TRAFFIC BREAK CODE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		HPMS, TDA, traffic data collectors, others using traffic data	All state highways, NHS roadways, SIS roadways, all managed lanes, all roadways functionally classed higher than local, and ramps for limited access facilities associated with interchanges. Effective September 2019.	N/A	N/A

**Definition/Background:** Describes the location of the TMSs in relation to the traffic flow break limits from which traffic data is obtained.

**How to Gather this Data:** The District Traffic Section is responsible for assigning traffic break codes for each flow break count station. The beginning and ending milepoints shall be the same as those for the FLWBRKID. This data is updated annually by TDA during end-of-year processing.

The TRFBRKCD for a flow break in which a two-way count station's traffic is to be used on a two-way roadway segment shall be 1, 2 or 3, as appropriate.

The TRFBRKCD for a flow break in which a one-way count station's data is to be assigned to a one-way roadway segment shall be 1, 2, or 3, as appropriate.

The TRFBRKCD for a flow break in which one direction of a two-way count station's traffic data is to be assigned to a one-way roadway segment shall be N, E, S or W, as appropriate.

Any interim updates should be performed by District Traffic Section.

Codes	Descriptions
<b>1</b>	Station is located <u>within</u> the traffic break
<b>2</b>	Station is located on the same roadway ID, but outside the traffic break
<b>3</b>	Station is located on a different roadway ID
<b>N</b>	Northbound data only from a station not located within the traffic break
<b>E</b>	Eastbound data only from a station not located within the traffic break
<b>S</b>	Southbound data only from a station not located within the traffic break
<b>W</b>	Westbound data only from a station not located within the traffic break

## FEATURE 331

### TRAFFIC FLOW BREAKS

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	Yes	No	Length	Yes	Yes
<b>Responsible Party for Data Collection</b>		For batch load—Traffic Data or Transportation Data Inventory Section in TDA. For manual update—Traffic Data Section in Districts or TDA.			

**Definition/Background:** This feature automatically generates from the Traffic Counts Inventory (TCI) application, identifies the annual average daily traffic (AADT) date, type and section, average D factor, K factor, T factor.

#### AADTDATE | AADT DATE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		HPMS, TDA, traffic data collectors, others using traffic data	All state highways, NHS roadways, SIS roadways, all managed lanes, all roadways functionally classed higher than local, and ramps for limited access facilities associated with interchanges. Effective September 2019.	N/A	N/A

**Definition/Background:** Shows the date the Section AADT (SECTADT) is populated on all traffic breaks. This characteristic is populated by using two different approaches:

1. Using a batch upload from a flat file created at the end of the year for all traffic breaks established through the TCI process. This process is explained in the Traffic Monitoring Handbook. The use of this process requires a lot more information on TMSs.
2. The manual update process. This process is less detailed and SECTADT is obtained from local sources, estimated based on local knowledge, or by conducting a special count.

**How to Gather this Data:** Batch loaded AADTDATE will have an end of year date for which the traffic information is collected. Manually updated AADTDATE will have a date for which traffic information is obtained.

**Value for AADT Date:** 8 Bytes: MMDDYYYY—Use month, day, year format (e.g., 12312003)

## AADTTYPE | AADT TYPE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		FHWA for apportionment, project engineers for project development, planners for transportation planning, private developers, and customers. HPMS, TDA, traffic data collectors, others using traffic data	All state highways, NHS roadways, SIS roadways, all managed lanes, all roadways functionally classed higher than local, and ramps for limited access facilities associated with interchanges. Effective September 2019.	N/A	N/A

**Definition/Background:** Shows the type or source of SECTADT. This characteristic is populated by using two different approaches:

1. Using a batch upload from a flat file created at the end of the year for all traffic breaks established through the TCI process. This process is explained in the Traffic Monitoring Handbook. The use of this process requires a lot more information on TMSs.
2. The manual update process. This process is less detailed and SECTADT is obtained from local sources, estimated based on local knowledge, or by conducting a special count.

**How to Gather this Data:** The flat file provided by the Traffic Data Section will have a flag for two-way AADT from which the traffic information is collected. If the two-way flag is “C,” code 1. If the flag is “E,” “F,” or “S,” code 2. The Districts are expected to obtain traffic information from local sources. Based on the source of traffic information, if it is a local Government traffic monitoring program or special count, code 3. If the source is local knowledge, code 4.

Codes	Descriptions
1	Final estimate from survey
2	Final estimate from growth factor
3	Interim estimate from survey
4	Estimate from system average

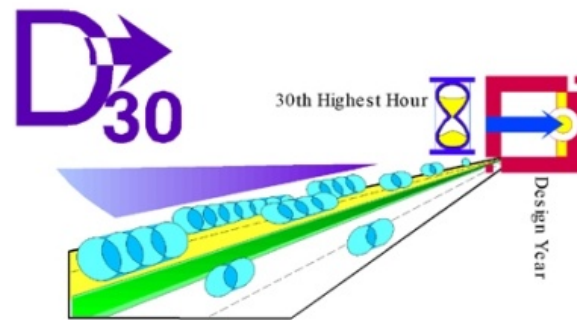
## AVGDFACT | ROADWAY SECTION AVERAGE DIRECTIONAL FACTOR

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
27		FHWA for apportionment, project engineers for project development, planners for transportation planning, private developers, and customers. HPMS, TDA, traffic data collectors, others using traffic data	All state highways, NHS roadways, SIS roadways, all managed lanes, all roadways functionally classed higher than local, and ramps for limited access facilities associated with interchanges. Effective September 2019.	N/A	N/A

**Definition/Background:** Shows the percentage of 30<sup>th</sup> highest hourly volume in the predominant direction. This characteristic is populated using a batch upload from a flat file created at the end of the year for all traffic breaks established through the TCI process. This process is explained in the Traffic Monitoring Handbook.

**How to Gather this Data:** The flat file provided by the Traffic Data Section will have the D factor for the traffic break from which the traffic information is collected.

**Value for Roadway Section Average D Factor:** 4 Bytes: XX.XX—Record a number from 50.00 to 99.99



## AVGKFACT | K FACTOR

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
26		FHWA for apportionment, project engineers for project development, planners for transportation planning, private developers, and customers. HPMS, TDA, traffic data collectors, others using traffic data	All state highways, NHS roadways, SIS roadways, all managed lanes, all roadways functionally classed higher than local, and ramps for limited access facilities associated with interchanges. Effective September 2019	N/A	N/A

**Definition/Background:** Shows the FDOT “Standard K” factors based on area type and facility type with consideration to typical peak periods of the day. This characteristic is populated using a batch upload from a flat file created at the end of the year for all traffic breaks established through the TCI process. This process is explained in the Traffic Monitoring Handbook. See table below.

**How to Gather this Data:** The flat file provided by Traffic Data Section will have the K factor for the traffic break from which the traffic information is collected.

**Value for K Factor:** 4 Bytes: XX.XX—Record a number from 07.50 to 10.50

<b>Standard K Table</b>			
Area (Population) & [Examples]	Facility Type	Standard K Factors <sup>1</sup> (% AADT)	Representative Time Period
Large Urbanized Areas with Core Freeways (1,000,000+) [Jacksonville, Miami]	Freeways	8.0–9.0 <sup>3</sup>	Typical weekday peak period or hour
	Arterials & Highways	9.0 <sup>2</sup>	Typical weekday Peak hour
Other Urbanized Areas (50,000+) [Tallahassee, Ft. Myers]	Freeways	9.0 <sup>2</sup>	Typical weekday Peak hour
	Arterials & Highways	9.0 <sup>2</sup>	Typical weekday Peak hour
Transitioning to Urbanized Areas (Uncertain) [Fringe Development Areas]	Freeways	9.0	Typical weekday Peak hour
	Arterials & Highways	9.0	Typical weekday Peak hour
Urban (5,000—50,000) [Lake City, Key West]	Freeways	10.5	100 <sup>th</sup> highest hour of the year
	Arterials & Highways	9.0 <sup>2</sup>	Typical weekday Peak hour
Rural (<5,000) [Chipley, Everglades]	Freeways	10.5	100 <sup>th</sup> highest hour of the year
	Arterials	9.5 <sup>2</sup>	100 <sup>th</sup> highest hour of the year
	Highways	9.5	100 <sup>th</sup> highest hour of the year

<sup>1</sup> Some smoothing of values at area boundaries/edges would be desirable.

<sup>2</sup> Value is 7.5 percent in approved Multimodal Transportation District where automobile movements are deemphasized. Essentially, this lower value represents an extensive multi-hour peak period rather than a peak hour.

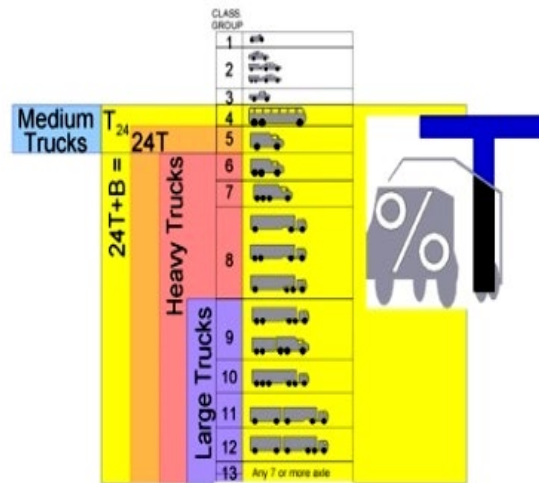
<sup>3</sup> Value is 8.0 percent for FDOT designated urbanized core freeways and may be either 8.5 percent or 9.0 percent for non-core. Freeways. Values less than 9 percent essentially represent a multi-hour peak period rather than a peak hour.

## AVGTFACT | ROADWAY SECTION AVERAGE TRUCK FACTOR

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
22–25		FHWA for apportionment, project engineers for project development, planners for transportation planning, private developers, and customers. HPMS, TDA, traffic data collectors, others using traffic data	All state highways, NHS roadways, SIS roadways, all managed lanes, all roadways functionally classed higher than local, and ramps for limited access facilities associated with interchanges. Effective September 2019.	N/A	N/A

**Definition/Background:** Shows the percentage of the AADT that consists of trucks. Here "trucks" means vehicles in classifications 4 through 13 of FHWA's scheme F. This includes buses and trucks larger than pickups. It does not include motorcycles, passenger cars, pickups, or SUVs. This characteristic is populated using a batch upload from a flat file created at the end of the year for all traffic breaks established through the TCI process. This process is explained in the Traffic Monitoring Handbook.

**How to Gather this Data:** The flat file provided by Traffic Data Section will have the T factor for the traffic break from which the traffic information is collected.



**Value for Section Average T Factor:** 4 Bytes: XX.XX—Record a number from 00.00 to 99.99

## SECTADT | SECTION AVERAGE ADT

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
21		FHWA for apportionment, project engineers for project development, planners for transportation planning, private developers, and customers. HPMS, TDA, traffic data collectors, others using traffic data	All state highways, NHS roadways, SIS roadways, all managed lanes, all roadways functionally classed higher than local, and ramps for limited access facilities associated with interchanges. Effective September 2019.	N/A	N/A

**Definition/Background:** An estimate of the AADT traveled on the roadway ID.

**How to Gather this Data:** The flat file provided by Traffic Data Section will have a flag for two-way AADT from which the traffic information is collected. Districts are expected to obtain traffic information from local sources.



**Special Situations:** On roadways functionally classified local or greater for which an actual count is not required, a count or estimate from Department or non-Department personnel should be obtained and entered directly into RCI.

**Value for Section Average ADT:** 6 Bytes: XXXXXX—Record the 6-digit count



## FEATURE 341

### LIGHTING SYSTEM

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C/R/L	No	No	Point	No	Yes
Responsible Party for Data Collection		District Office of Maintenance			

**Definition/Background:** Identifies the type and number of poles and luminaries on the system. Only lighting systems owned by and maintained by the Department or FDOT contracted agreement should be inventoried.

#### LOCOWNER | OWNER OF LOCAL LUMINARIES

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Enter the name of the City/County that owns or maintains (through contract or other written agreement) the local luminaries.

**Value for Number of Aluminum Poles:** 20 Bytes: XXXXXXXXXXXXXXXXXXXXX

#### NOALUMPOL | NUMBER OF ALUMINUM POLES

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of aluminum poles along the roadway.

**Value for Number of Aluminum Poles:** 3 Bytes: XXX

## NOCONPOL | NUMBER OF CONCRETE POLES

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of concrete poles along the roadway.

**Value for Number of Concrete Poles:** 3 Bytes: XXX

## NOFIBPOL | NUMBER OF FIBERGLASS POLES

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of fiberglass poles along the roadway.

**Value for Number of Fiberglass Poles:** 3 Bytes: XXX

## NOHMSLUM | NUMBER OF HIGH MAST LUMINARIES

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of high mast luminaries along the roadway. This count is for the individual luminaries.

**Value for Number of High Mast Luminaries:** 3 Bytes: XXX

## NOLOCLUM | NUMBER OF LUMINARIES UNDER LOCAL AGREEMENT

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of luminaries maintained under local agreements along the roadway.

**Value for Luminaries Under Local Agreement:** 3 Bytes: XXX

### NOOTHPOL | NUMBER OF HIGH MAST POLES

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of high mast poles along the roadway.

**Value for Number of High Mast Poles:** 3 Bytes: XXX

### NOSGMLUM | NUMBER OF SIGN LUMINARIE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of sign luminaries along the roadway.

**Value for Number of Sign Luminaries:** 3 Bytes: XXX

### NOSTDLUM | NUMBER OF STANDARD LUMINARIES

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of standard luminaries along the roadway.

**Value for Number of Standard Luminaries:** 3 Bytes: XXX

## NOSTLPOL | NUMBER OF STEEL POLES (NOT TO INCLUDE HIGH MAST)

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of steel poles along the roadway.

**Value for Number of Steel Poles:** 3 Bytes: XXX

## NOUDKLUM | NUMBER OF UNDERDECK LUMINARIES

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of underdeck luminaries along the roadway.

**Value for Number of Underdeck Luminaries:** 3 Bytes: XXX

## NOWDPOL | NUMBER OF WOOD POLES

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of wood poles along the roadway.

**Value for Number of Wood Poles:** 3 Bytes: XXX

## FEATURE 360

### TOLL PLAZAS

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C/R/L	Yes	No	Point	Yes	Yes
Responsible Party for Data Collection		District Planning			

### TOLPLZNM | TOLL PLAZA NAME

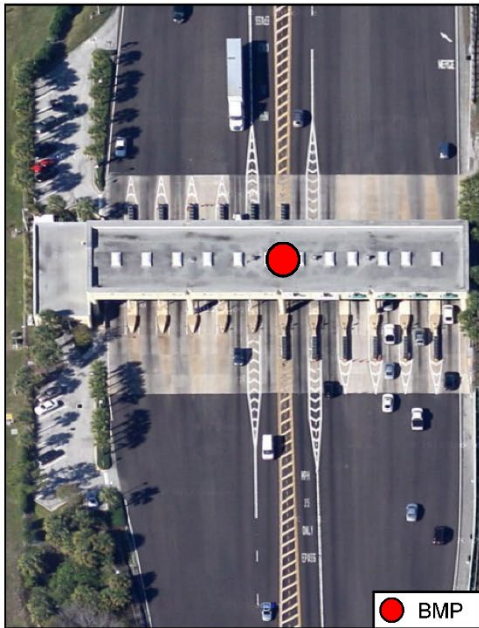
HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		General information, wide usage	All interstates, tolled or non-tolled expressway facilities.	N/A	N/A

**Definition/Background:** Records the name associated with a toll plaza.

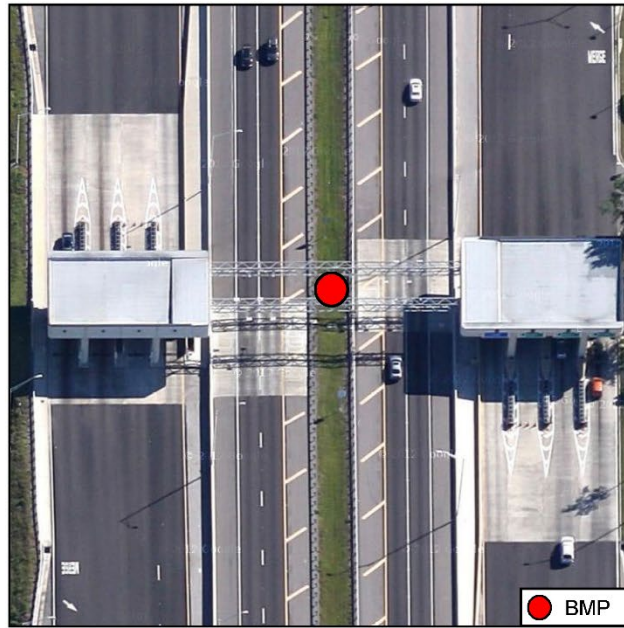
**How to Gather this Data:** Collect the milepoint at the midpoint of the toll collection booth, in the most inside lane possible. The toll plaza name will generally be the nearest exit name or crossing facility.

**Value for Toll Plaza Name:** 20 Bytes: XXXXXXXXXXXXXXXXXXXXXXX—Record name of plaza up to 20 characters

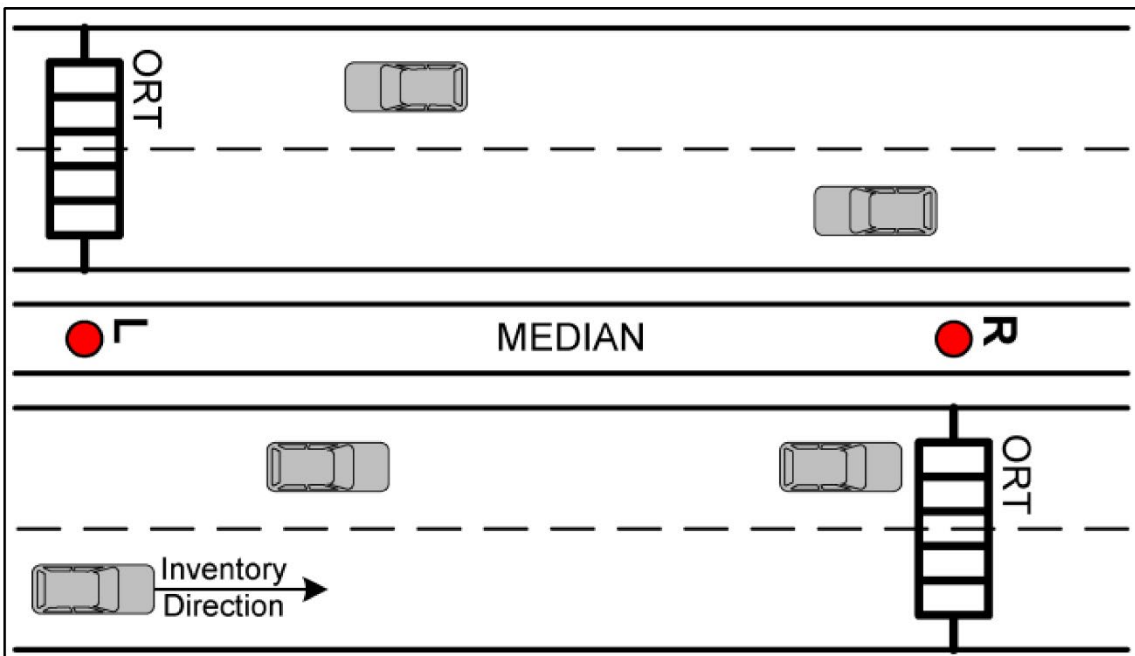
## EXAMPLES



Toll Plaza with Combined ORT Composite



Toll Plaza with Separate ORT Composite



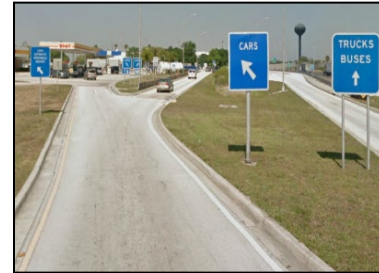
Toll Plazas at Different Milepoints Code on Left and Right

## FEATURE 361

### SERVICE PLAZAS

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C/R/L	Yes	No	Point	Yes	Yes
Responsible Party for Data Collection		District Planning			

**Definition/Background:** Denotes the name of the service plaza.



#### SVCPLZNM | SERVICE PLAZA NAME

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
		General information, wide usage	All service plazas maintained by the Department.	N/A	N/A

**How to Gather this Data:** Use the RCI milepoints collected for SVPBEGMM and SVPENDMM as the beginning and ending milepoints for this characteristic.

**How to Gather this Data:** Record the service plaza name using posted signs.

**Special Situations:** Also may be used for rest areas, weigh stations, or agricultural stations.

**Value for Service Plaza Name:** 20 Bytes: XXXXXXXXXXXXXXXXXXXX—Record name of plaza up to 20 characters

## Maintenance Features

These features are collected for maintenance of the travelway.

### FEATURE 411

#### *ROADSIDE MOWING*

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
R/L	No	No	Total	No	Yes
<b>Responsible Party for Data Collection</b>		District Office of Maintenance			

**Definition/Background:** Mowing is provided on all state roadways not only for aesthetic reasons but also for safety. Mowing should be inventoried exactly as work is being done and as it is contracted out. Check with contract personnel to determine how mowing is being contracted out. The mowing guide shall be referenced to determine the limits and type of mowing. Mowing areas located under or within Feature 431 Parks & Rest Areas shall be inventoried per rest area contract agreement or by FDOT forces, whichever is applicable.

Notes the different types of mowing performed by maintenance personnel, i.e., large machine, intermediate machine, small machine, slope mowing. All mowing is inventoried by the acre and is recorded to the most efficient and effective mowing activity. The mowing guide shall be referenced to determine the limits and type of mowing.

Mowing in the median will be included with the right-side inventory. If the below characteristics are located at a rest area, ramp, or other applicable sub-section, they are to be inventoried against the applicable sub-section. Use the following formula to calculate the area, length \* width / 43,560 = acres.

#### INMACHMW | INTERMEDIATE MACHINE MOWING

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the total number of acres, to the nearest 1/10 acre, of mowing performed by a mower greater than 40 inches and less than 7 feet. If mowing is being performed by contract forces, check with contracts personnel to determine the type of mowing being paid, and record as that type. Separate entries are required for the right and the left sides of the roadway.

**Value for Intermediate Machine Mowing Acreage:** 3 Bytes: XX.X





**RDSDMOW | ROADSIDE MOWABLE AREA (LARGE)**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the total number of acres, to the nearest 1/10 acre, of large machine mowing. The Department considers large machine mowing as mowers in the 7 feet or larger range. A strip along interstate fences may be recorded at 5/17 value, i.e., 17 acres = 5 acres. Separate entries are required for the right and the left sides of the roadway.

**Value for Roadside Mowable Area Acreage:** 3 Bytes: XX.X

**SLOPEMOW | SLOPE MOWABLE AREA**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the total number of acres, to the nearest 1/10 acre, of slope mowing. Slope mowing is defined as mowable areas having a slope greater than 3 to 1 and requiring specialized equipment. Separate entries are required for the right and the left sides of the roadway.

**Value for Slopes Mowable Area Acreage:** 3 Bytes: XX.X



## SMMACHMOW | SMALL MACHINE MOWING AREA

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the total number of acres, to the nearest 1/100 acre, of small machine mowing. Small machine mowers are hand or riding type mowers with a cutting width of 40 inches or less. Record utility strip mowing as continuous where breaks do not exceed 50 feet. Separate entries are required for the right and the left sides of the roadway.



Measure as continuous through obstructions and turnouts unless there is a break greater than 50 feet.

**Value for Small Machine Mowing Area Acreage:** 4 Bytes: XX.XX

## FEATURE 412

### WEED CONTROL

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
R/L	No	No	Total	No	Yes
Responsible Party for Data Collection		District Office of Maintenance			

**Definition/Background:** Weed control maintains the appearance, safety, and drainage of the highway facility in areas that cannot be controlled by more economical means.

It notes the type of weed control used and the location where the work is performed. The work is reported in acres. The work areas inventoried under this feature should not be recorded under any other feature, such as small, intermediate, slope or large machine mowing.

Weed control in the median will be included with the right-side inventory. If the below characteristics are located at a rest area, ramp, or other applicable sub-section, they are to be inventoried against the applicable sub-section number.

### HANDCUT | HAND CUT AREA

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of acres, to the nearest 1/100 acre, of weed control to be performed by hand labor, such as weed eaters, hedge clippers, or other means for weed control. Weed control in these areas is impossible to control by chemical or mechanical means. Separate entries are required for the right and left sides of the roadway.



**Value for Hand Cut Area Acreage:** 3 Bytes: X.XX

## MWEEDCTL | MECHANICAL WEED CONTROL AREA

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of acres, to the nearest 1/100 acre, of weed control to be performed by mechanical means. These areas are defined as areas that cannot be maintained with routine large machine mowers and do not require hand labor to cut. Separate entries are required for the right and left sides of the roadway.

**Value for Mechanical Weed Control Area Acreage:** 3 Bytes: X.XX

**NOTE:** This type of weed control is very rare.



## OBSPRAY | OBSTRUCTION SPRAYING AREA

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of acres, to the nearest 1/100 acre, of obstructions that are chemically sprayed, excluding slopes, roadside ditches and outfall ditches. Include guy-wire anchors, phone booths, bus stop buildings, mailboxes, fire hydrants, telephone poles, utility poles, miscellaneous items, and street signs not covered by RCI inventory. Do not include inventoried features such as signs. Each obstruction represents 30 square feet. If on the right there are 20 obstruction areas in the mile being inventoried, then this would be  $20 \times 30 = 600 / 43,560 = 0.01$  acres. Separate entries are required for the right and left sides of the roadway.

**Value for Obstruction Spraying Area Acreage:** 4 Bytes: XX.XX



Obstruction Area			
Date: _____	Section _____		
Mail Boxes	=30 sq. ft. X _____	Ea. = _____	Sq. Ft. _____
Telephone Poles	=30 sq. ft. X _____	Ea. = _____	Sq. Ft. _____
Guy Wires	=30 sq. ft. X _____	Ea. = _____	Sq. Ft. _____
Fire Hydrants	=30 sq. ft. X _____	Ea. = _____	Sq. Ft. _____
Bus Stop Buildings	=30 sq. ft. X _____	Ea. = _____	Sq. Ft. _____
*Misc Items	=30 sq. ft. X _____	Ea. = _____	Sq. Ft. _____
Total			Sq. Ft. _____
<p>* Misc Items are any obstructions that are....</p> <ul style="list-style-type: none"> <li>not listed above</li> <li>not in RCI</li> <li>found while doing the RCI</li> </ul>			

## FEATURE 413

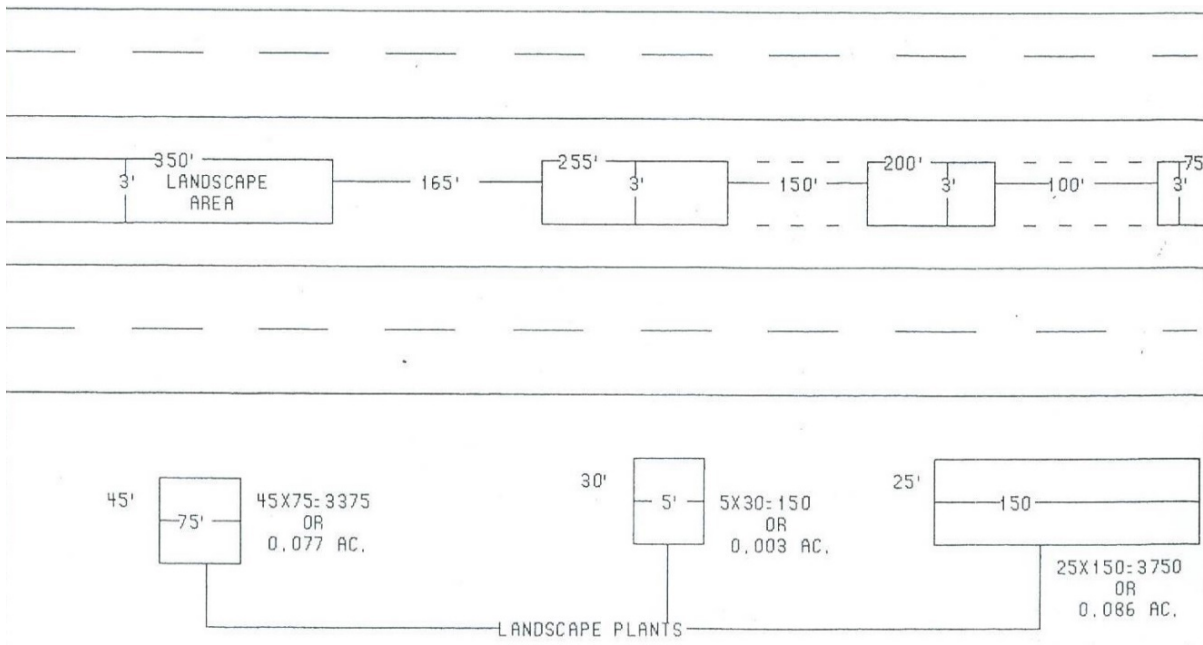
### LANDSCAPE AREA

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
R/L	No	No	Total	No	Yes
<b>Responsible Party for Data Collection</b>		District Office of Maintenance			

**Definition/Background:** Landscaped areas are ornamental bushes, shrubs, flowers, and/or plants that require at least three of the following criteria: weeding, mulching, trimming, pruning, replacing, fertilizing, edging, and insecticide spraying.

Exclude sites or locations where native plants or low-cost vegetation are planted or promoted. Examples include sea grapes, mangroves, trees, and wildflowers. Landscape areas located at rest area locations shall be inventoried per rest area contract agreement or by FDOT forces, whichever is applicable. All landscape areas within the right-of-way that currently are under a Memorandum of Agreement (MOA) or being maintained by others should be calculated and entered into RCI. The area should be coded and added to the mowing feature for that section. The additional funding generated for mowing, could be transferred to the MOA to differ some of the landscape maintenance costs.

Measurements will include the average width multiplied by the length of the area involved, divided by 43,560 to arrive at the acres to be coded. Where there are only trees included in areas designated as landscaping, 30 square feet per tree will be used in the calculation.





**BOLDLAND | BOLD LANDSCAPING**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	2-right or 3-left	N/A

**Definition/Background:** Bold landscape areas are defined as landscape contracts with an installation period followed by an establishment period, which is typically two years.

**How to determine Begin and End of this Data:** From the beginning milepoint of where the bold landscaping physically begins to the ending milepoint of where the bold landscaping physically ends. Do not break for mile increments.



**How to Gather this Data:** Code the total number of acres, to the nearest 1/100 acre, of bold landscape area that is contiguous. Separate entries are required for right, left and median islands. Median areas shall be recorded right side/offset left. If there is a break over 150 feet, then record each bold landscape area separately.

**Cross-Reference:** The acreage recorded as Bold Landscaping is not to be included in Feature 411—Roadside Mowing.

**Special Situations:** Bold Landscaping is reported with the mainline section. However, when Bold Landscaping exists along an Active Exclusive roadway (e.g., ramp or managed lane) and not adjacent to the mainline, then code the information with the Active Exclusive roadway instead. Typically, the Bold Landscaping in interchanges should be carried with the mainline (e.g., I-10).



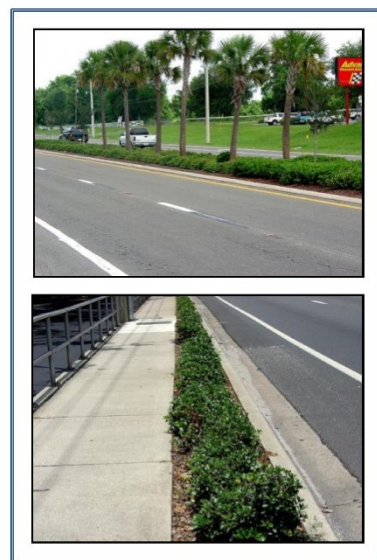
## LANDSCAPE | LANDSCAPE AREA

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the total number of acres, to the nearest 1/100 acre, of landscaped area. Separate entries are required for right and the left sides of the roadway. Median areas shall be recorded against the right-side roadway. If there is a break over 150 feet, then the landscape area will stop. If the break is less than 150 feet, then continue the landscape area.

**Value for Landscape Area Acreage:** 3 Bytes: X.XX

Unit Management will decide which areas of landscaping will be included in the RCI inventory. If the above characteristic is located at a ramp or other applicable sub-section other than rest areas, it is to be inventoried against the applicable sub-section number.





## FEATURE 421

### ROADSIDE DITCH CLEANING

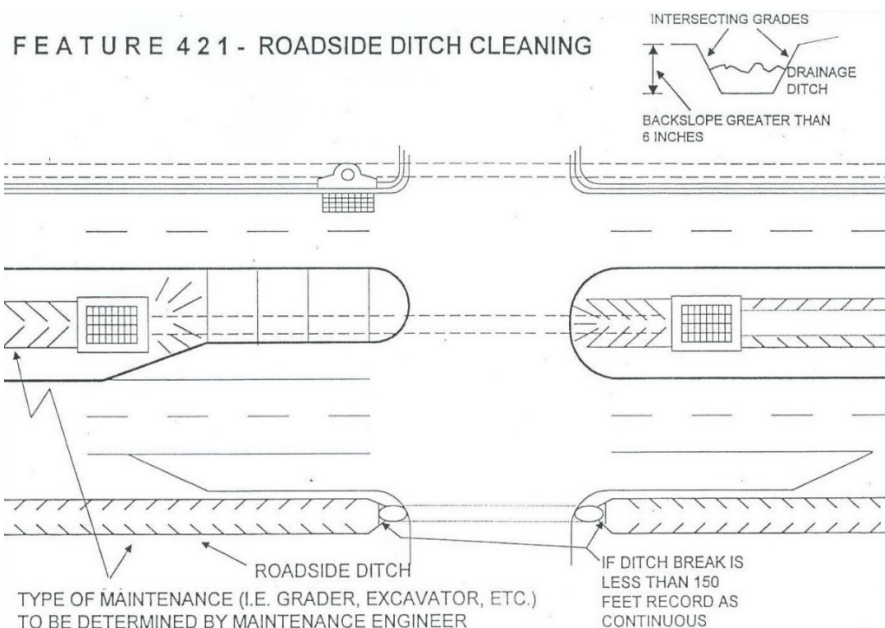
Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
R/L	No	No	Total	No	Yes
Responsible Party for Data Collection		District Office of Maintenance			

**Definition/Background:** A roadside ditch stores runoff water or removes it by channelization to a discharge point. Water that is stored at pervious locations will be removed through infiltration, while at impervious locations; the water will be removed through evapotranspiration. Channelization of the water will usually run parallel to the roadway until it is possible to discharge into lands or surface water bodies adjacent to highway rights-of-way.

Notes the number and length of roadside ditches along the roadside. More importantly, this feature notes the type of equipment used to clean the roadside ditch excavator and the roadside canals dragline. A ditch is two intersecting grades, holds or carries water, has a back slope of 6 inches or greater and is maintained on a regular frequency. Grader cleaned ditches are computed as a factor of shoulder miles in the RCICIA program.

**Special Situation:** Permitted storm water sites that are designed to retain silt material or are built with specialized under drain will not be included in ditch measurements. Ditches will have to be broken at locations where the length of the treatment area exceeds 150 feet. This would include sites containing ditch blocks, gravel treatment areas, and concrete weirs.

If the below characteristics are located at a rest area, ramp, or other applicable sub-section, they are to be inventoried against the applicable sub-section number.



## RDCANALS | NUMBER OF ROADSIDE CANALS

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the total number of roadside canals between a beginning milepoint and an ending milepoint maintained by dragline, adjacent to the roadway.

**Value for Number of Roadside Canals:** 1 Byte: X

**NOTE:** In the past, a dragline was used on these type of roadway canals but using an excavator or a grader is now more efficient. This characteristic is rarely used due to limitations on its presence along the roadway.



## RDITEXCA | NUMBER OF ROADSIDE DITCHES (EXCAVATOR)

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the total number of roadway ditches between a beginning milepoint and an ending milepoint maintained by excavator, adjacent to the roadway.

**Value for Number of Roadside Ditches:** 1 Byte: X



## FEATURE 422

### *MEDIAN DITCH CLEANING*

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
R/L	No	No	Length	No	Yes
Responsible Party for Data Collection		District Office of Maintenance			

**Definition/Background:** Notes the basic type of median ditches. Grader maintained ditches are calculated as a factor of grass median ditches.

All median inventories are to be coded against the right side of the roadway. If the below characteristics are located at a rest area, ramp, or other applicable sub-section, they are to be inventoried against the applicable sub-section number.

#### MDITHEXC | NUMBER OF MEDIAN DITCHES (EXCAVATOR)

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the total number of median ditches between a beginning milepoint and an ending milepoint cleaned by excavator. This inventory is intended to depict work style. Do not inventory workload if not maintained in the manner described.

**Value for Number of Median Ditches:** 1 Byte: X



## MDITPAVE | NUMBER OF MEDIAN DITCHES (PAVED)

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the total number of median ditches between a beginning milepoint and an ending milepoint that are paved. Breaks in paved areas of less than 150 feet will be included in the paved area inventories.

**Value for Number of Median Ditches:** 1 Byte: X



## MDITPIPE | NUMBER OF MEDIAN DITCHES (PIPED)

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the total number of median ditches between a beginning milepoint and an ending milepoint that are piped and not connected with storm sewer systems.

**Value for Number of Median Ditches:** 1 Byte: X



## FEATURE 431

### PARKS AND REST AREAS

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
R/L	No	No	Point	No	Yes
Responsible Party for Data Collection		District Office of Maintenance			

**Definition/Background:** Parks, rest areas, and welcome stations provide the traveling public with a means to exit the roadway. They may be with or without facilities and may provide traveling information and assistance. These areas help to alleviate the stress and fatigue often associated with travel. Weight stations are used to prevent damage to the roadways by overweight trucks.

Lists the number of facilities and roadway milepoint at the approximate center of the facility. Facilities along with their inventory shall be recorded to the applicable sub-section number.

Catwalks and fishing piers should be inventoried as Wayside Parks. All inventories located within the facility should be recorded to the right.

Sub-section ramps for these areas begin at the edge of the paved gore where the grass begins and end at the paved gore where the grass ends, per Planning's requirements for milepoint limits. A physical gore is the actual point where the pavement of the sub-section leaves or meets the pavement of the mainline. This means that a sub-section should not begin or end at the centerline of the intersection roadway. If under contract the limits may extend beyond Planning's begin and end points. RCI inventories that extend beyond Planning's sub-section limits must be recorded within Planning's sub-section limits.

#### RSTAREAS | NUMBER OF REST AREAS WITHOUT FACILITIES

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code each rest area without facility by entering only the centerline milepoint that is between the beginning and ending of the rest area. Separate entries are required for the right and the left sides of the roadway.

**Value for Number of Rest Areas Without Facilities:** 1 Byte: X





## RSTARFAC | NUMBER OF REST AREAS WITH FACILITIES

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code each rest area with facility by entering only the centerline milepoint that is between the beginning and ending of the rest area. Separate entries are required for the right and the left sides of the roadway. Individual features not part of rest area facility maintenance, such as fence, lighting, striping, mowing, litter, and so forth should be recorded separately.



**Value for Number of Rest Areas With Facilities:** 1 Byte: X

## WAYSDEPKS | NUMBER OF WAYSIDE PARKS

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code each wayside park by entering only the centerline milepoint that is between the beginning and ending of the park. These are recreation-oriented areas including picnic facilities, benches, and grounds. Separate entries are required for the right and the left sides of the roadway.



**Value for Number of Wayside Parks:** 1 Byte: X

**WEIGHSTA | NUMBER OF WEIGH STATIONS**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code each weight station and weigh-in-motion (WIM) station by entering only the centerline milepoint that is between the beginning and ending of the weight station. Separate entries are required for the left and the right sides of the roadway.

**Value for Number of Weigh Stations:** 1 Byte: X

**WELCMSTA | WELCOME STATIONS**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code each welcome station by entering only the centerline milepoint that is between the beginning and ending of the park. Separate entries are required for the left and the right sides of the roadway.

**Value for Welcome Stations:** 1 Byte: X



## FEATURE 443

### DELINEATORS

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
R/L	No	No	Total	No	Yes
<b>Responsible Party for Data Collection</b>		District Office of Maintenance			

**Definition/Background:** This feature consists of hazard markers, guide markers, object markers, and delineators. They serve as visual markers for bridge ends, crossovers, and headwalls.

Record the number of markers installed, per mile, for the particular side of roadway being inventoried. Refer to Roadway Design Standard Index 17346 for details of location. Delineators located in the median shall be recorded to the right.

Type I Object Markers (a diamond-shaped panel nine-button or plain—Index 17349 and 17353) and Type III Object Markers (a black and yellow striped sign—Index 17359) shall be considered as Feature 480 Highway Signs when they are post mounted.

If Type I Object Marker (diamond-shaped panel nine-button or plain) is mounted directly to an object, then it will be inventoried as a delineator.

Type III Object Markers (yellow and black adhesive) that are not post mounted and are attached to the bridge or columns of the bridge will be counted as BRDELIN (number of object markers).

Yellow adhesive tape applied to guardrail will not be inventoried in RCI.

Adhesive sheeting and reflectors on guardrails are not to be inventoried as delineators.

#### BRDELIN | NUMBER OF BRIDGE END DELINEATORS

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Record the number of markers installed per mile for the particular side of roadway being inventoried. Refer to Roadway Design Standard Index 17346 for details of location.

There are two types of bridge delineators—Index 17359:

- A rectangular-shaped three-button panel (Type II Object Markers Roadway)
- A black and yellow adhesive type (Type III Object Markers)





Code the total amount of black and yellow adhesive object markers between a beginning and ending milepoint in one-mile increments. Separate entries are required for the left and the right sides of the roadway. Each bridge end or column delineator and others will be counted as one. Delineators located in the median shall be recorded on the right side.

**Value for Number of Bridge End Delineators:** 3 Bytes: XXX



## DELINEAT | NUMBER OF GUIDE POSTS/HAZARD MARKER DELINEATORS

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** There are two types of delineators:

1. Button type of amber, green, or white
2. Reflective sheeting type of amber, green, or white

One delineator is equal to one post and one marker or one post and two markers. Some locations require a marker on both sides of a single post, like crossovers, but will be counted as one. Code the total number of markers installed between a beginning and ending milepoint in one-mile increments. Separate entries are required for the left and the right sides of the roadway. Refer to Roadway Design Standard Index 17346 for details of location. Delineators are counted on concrete barrier wall, and not counted where inventory is covered by another feature, i.e., guardrail.

**Value for Number of Guide Posts/Hazard Marker Delineators:** 3 Bytes: XXX



## FEATURE 451

### STRIPING

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
R/L	No	No	Length	No	Yes
Responsible Party for Data Collection		District Office of Maintenance			

**Definition/Background:** Striping provides the visual information needed by the driving public to steer a vehicle safely in a variety of situations.

Lists the type and number of stripes being counted. If more than one line of the same configuration is being measured simultaneously, then enter the number of lines being measured. Do not overlap milepoints for like characteristics on the same roadway side. When measuring the double lines used to outline a painted median, it is suggested measuring one side of the painted median per roadway side. The length of this feature is determined from milepoint indicated.

Striping breaks through intersections and auxiliary lanes less than 150 feet in length can be recorded as continuous. If the below characteristics are located at a rest area, ramp, or other applicable sub-section, they are to be inventoried against the applicable sub-section number.

Do not overlap milepoints for the same characteristic. If an additional stripe(s) begins within the mile section being inventoried, end the first stripe(s) at that point and begin a number count of additional stripes at that milepoint. Inventory the perimeter of crosshatching by the most recent application unless it is wider than 6,” then it will be included as symbols.

#### DBLELINE | NUMBER OF STRIPES | DOUBLE WHITE OR YELLOW

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of double white or yellow stripes along the roadway. Record double stripes on two lane roadways to the right side of the roadway.

Inventory the perimeter by the most recent application. If the perimeter is wider than 6,” then it will be inventoried as Feature 452 Symbols. Crosshatches in gore areas are to be inventoried as Feature 452 Symbols.

**Value for Number of Stripes—Double White or Yellow:** 1 Byte: X



## SKIPLINE | NUMBER OF STRIPES | SKIP WHITE OR YELLOW

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of skip stripes lines along the roadway. Separate entries are required for the right and the left sides of the roadway. Single skip lines on a two-lane roadway are inventoried to the right side of the roadway.

**Value for Number of Stripes—Skip White or Yellow:** 1 Byte: X



Thermo tape applications like in the second image below should be inventoried as regular skip lines. It has been applied to certain concrete roadways as a trial and is being monitored for its adhesive properties.

## SKIPWHBK | NUMBER OF STRIPES | SKIP WHITE WITH BLACK

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of white or yellow skip with black stripe lines along the roadway. Separate entries are required for the right and the left sides of the roadway. Normally white or yellow skip with black stripe lines are used to enhance visibility.

**Value for Number of Stripes—Skip White With Black:** 1 Byte: X



## SNGLLINE | NUMBER OF STRIPES | SINGLE WHITE OR YELLOW

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the milepoint and number of single stripes along the roadway. Separate entries are required for the right and the left sides of the roadway. For consistency, record striping in the center of the roadway to the right.

**Value for Number of Stripes—Single White or Yellow:** 1 Byte: X

When white or yellow edge lines have hash marks at crossovers, acceleration lanes, deceleration lanes, and intersections greater than 150' in length, they should be inventoried as a skip line. Hash marks in addition to the edge line stripe should be recorded separately as skip line.



## FEATURE 452

### SYMBOLS AND MESSAGES

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
R/L	No	No	Total	No	Yes
<b>Responsible Party for Data Collection</b>		District Office of Maintenance			

**Definition/Background:** Lists the area in square feet of crosshatching, curb marking, number of arrows or letters, and radius marking.

If the below characteristics are located at a rest area, ramp, or other applicable sub-section, they are to be inventoried against the applicable sub-section number.

#### CRSHATCH | CROSSHATCHING AREA

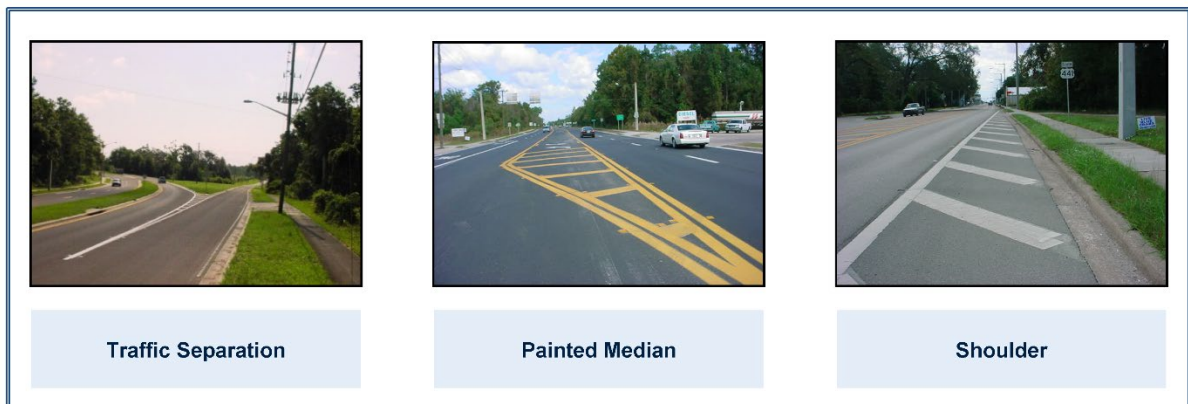
HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the amount of square feet of material used in crosshatched areas within each one-mile increment along the roadway. Code the perimeter of the crosshatched area in addition to the hatch marks. Separate entries are required for the right and the left side of the roadway. For consistency, record all median crosshatching to the right.

Crosshatching areas include gore areas for traffic channelization or separation (Indexes 17345 and 17346), lane drop transitions (Index 17346), and painted medians (Index 17346).

If the painted line bordering a crosshatched area is wider than 6 inches, placed with small machine application, it should be recorded as a radius marking.

**Value for Crosshatching Area Square Feet:** 4 Bytes: XXXX



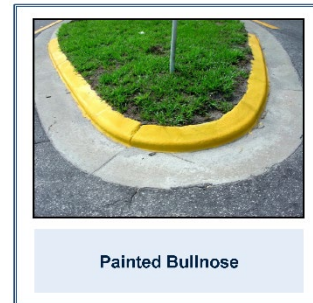


## CURBMARK | CURB MARKING AREA

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the amount of square feet of material used in curb marking areas within each one-mile increment along the roadway. Separate entries are required for the right and the left side of the roadway. For consistency, record all curb marking in the median to the right.

**Value for Curb Marking Area Square Feet:** 4 Bytes: XXXX



## PNTARROW | NUMBER OF ARROWS

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of arrows along the roadway for each one-mile increment. Each arrowhead will be counted as one; double arrowheads will be counted as two. Separate entries are required for the right and the left sides of the roadway.

Bike lane arrows should be counted as one for two in the field. (i.e., If you have 12 arrows in the bike lane, you count 6 for RCI input.) If you have an odd number of bike lane arrows, round up. (i.e., If you have 15 arrows in the bike lane, you count 8 for RCI input)

**Value for Number of Arrows:** 2 Bytes: XX



## PNTLETTR | NUMBER OF LETTERS

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of painted symbol letters separately on the right and left side of the roadway within each one-mile increment.

Bike lane letters should be counted as one for two in the field, (i.e., if you have 12 letters in the bike lane, you count 6 for RCI input). If you have an odd number of bike lane letters, round up, (i.e., if you have 15 letters in the bike lane, you count 8 for RCI input).

**Value for Number of Letters:** 2 Bytes: XX



## RADIUSMK | RADIUS MARKING AREA

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the amount of square feet of material used along the roadway within each one mile that is placed with small machine applicators and not inventoried elsewhere. May include parking area end caps, weigh stations, rest areas, bike lane markings, HOV symbols, handicapped parking symbols, or bike boxes.

Interstate exit numbers and letters are on average 16.2 square feet per number or letter including background and should be recorded to the nearest whole foot. For consistency, record numbers or combinations of number(s) and letter(s) as:

1 = 16 sq ft

2 = 33 sq ft

3 = 49 sq ft

4 = 65 sq ft

**Value for Radius Area Square Feet:** 4 Bytes: XXXX



## EXAMPLES



Turkey Tracks



Perpendicular to Roadway



Parking End Cap



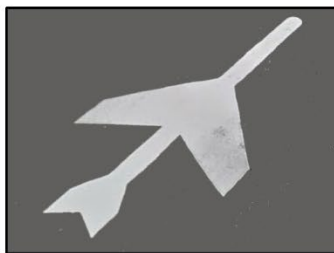
Stride Markings



Diamond = 11 SQ FT  
Cyclist = 5.4 SQ FT



2 SQ FT per Triangle



1 = 72 SQ FT



2 = 33 SQ FT



3 = 49 SQ FT



4 = 65 SQ FT

## FEATURE 453

### CROSSWALKS

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
R/L	No	No	Total	No	Yes
<b>Responsible Party for Data Collection</b>	District Office of Maintenance				

**Definition/Background:** Crosswalks are utilized by pedestrians to navigate safely across busy intersections located on FDOT right-of-way. These crosswalks are to include locations where school crossings exist. The length of the crosswalk is determined by the distance of the uninterrupted pavement marking.

Lists the number of crosswalks in various increments. Enter the number counted under the approximate length for the particular side of the roadway being measured. A crosswalk has two parallel lines, separated by a predetermined distance according to current FDOT Design Standards. Crosswalks on side streets are not to be inventoried unless they are within the extended right-of-way lines and are maintained by the Department. Units should check side street crosswalks and determine if they maintain them. School crossing crosswalks are to be included. Paved or unpaved medians that interrupt the continuation of the crosswalk are considered the termination point for the crosswalk. Crosswalks that extend across the entire FDOT roadway shall be inventoried to the right. Crosswalks, which are interrupted by medians, shall be counted on the side of the roadway at which they exist. Special emphasis crosswalks are to be included by entering the equivalent number of standard two bar crosswalks.

#### Special Situation:

1. Special emphasis crosswalk is to be included by entering the equivalent of a standard two bar crosswalk. Measure these types of crosswalks like a standard two bar crosswalk.
2. If the crosswalk is a special emphasis and a regular crosswalk together, they will both be counted into RCI.

For consistency, when state roadways intersect, record crosswalk inventories to the roadway that they exist on. If the below characteristics are located at a rest area, ramp, or other applicable sub-section, they are to be inventoried against the applicable sub-section number.



Special Situation 1



Special Situation 2

**CRWALK24 | NUMBER OF 24-FOOT CROSSWALKS**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of 24-foot crosswalks between each one-mile increment. Separate entries are required for the right and left sides of the roadway.

**Value for Number of 24-Foot Crosswalks:** 2 Bytes: XX

**CRWALK36 | NUMBER OF 36-FOOT CROSSWALKS**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of 36-foot crosswalks between each one-mile increment. Separate entries are required for the right and left sides of the roadway.

**Value for Number of 36-Foot Crosswalks:** 2 Bytes: XX



## CRWALK48 | NUMBER OF 48-FOOT CROSSWALKS

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of 48-foot crosswalks between each one-mile increment. Separate entries are required for the right and left sides of the roadway.

**Value for Number of 48-Foot Crosswalks:** 2 Bytes: XX



## CRWALK60 | NUMBER OF 60-FOOT CROSSWALKS

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of 60-foot crosswalks between each one-mile increment. Separate entries are required for the right and left sides of the roadway.

**Value for Number of 60-Foot Crosswalks:** 2 Bytes: XX



## CRWALK72 | NUMBER OF 72-FOOT CROSSWALKS

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of 72-foot crosswalks between each one-mile increment. Separate entries are required for the right and left sides of the roadway.

**Value for Number of 72-Foot Crosswalks:** 2 Bytes: XX





## FEATURE 454

### STOP BARS

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
R/L	No	No	Total	No	Yes
Responsible Party for Data Collection		District Office of Maintenance			

**Definition/Background:** Stop bars are provided to give the traveling public a known point to stop when approaching a stop sign or traffic signal.

Lists the number of stop bars counted for left or right roadway, under the approximate or appropriate length. Stop bars on side streets are not to be inventoried unless they are within the extended right-of-way lines and are maintained by the Department. Railroad crossings are to be included and are equivalent to two 12-foot stop bars with one at the top and one at the bottom, and two 24-foot stop bars per lane. For school crossings, the bars located at the top and bottom of the messages are to be included. Each crossing is the equivalent of two 12-foot stop bars per lane. Inventory letters under Feature 452 Symbols & Messages.

Stop bars on non-state side streets maintained by the department are collected.

If the below characteristics are located at a rest area, ramp, or other applicable sub-section, they are to be inventoried against the applicable sub-section number.

#### STOPBR12 | NUMBER OF 12-FOOT STOP BARS

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of 1-foot stop bars between each one-mile increment. Separate entries are required for the right and the left sides of the roadway.

**Value for Number of 12-Foot Stop bars:** 2 Bytes: XX



**STOPBR18 | NUMBER OF 18-FOOT STOP BARS**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of 18-foot stop bars between each one-mile increment. Separate entries are required for the right and the left sides of the roadway.

**Value for Number of 18-Foot Stop bars:** 2 Bytes: XX

**STOPBR24 | NUMBER OF 24-FOOT STOP BARS**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of 24-foot stop bars between each one-mile increment. Separate entries are required for the right and the left sides of the roadway. In the left and middle photos below, the stop bars are on a divided highway. In these situations, record two 24-foot stop bars at the top and bottom. Also, code the bars in the “X” as 24-foot stop bars.

**Value for Number of 24-Foot Stop bars:** 2 Bytes: XX

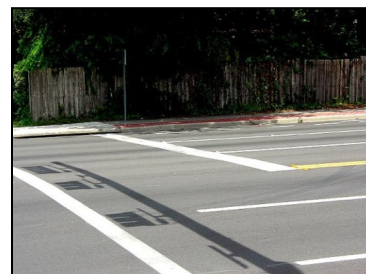


## STOPBR36 | NUMBER OF 36-FOOT STOP BARS

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of 36-foot stop bars between each one-mile increment. Separate entries are required for the right and the left sides of the roadway.

**Value for Number of 36-Foot Stop bars:** 2 Bytes: XX



## STOPBR48 | NUMBER OF 48-FOOT STOP BARS

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of 48-foot stop bars between each one-mile increment. Separate entries are required for the right and the left sides of the roadway.

**Value for Number of 48-Foot Stop bars:** 2 Bytes: XX





## FEATURE 455

### RAISED PAVEMENT MARKERS

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
R/L	No	No	Total	No	Yes
Responsible Party for Data Collection		District Office of Maintenance			

**Definition/Background:** Raised pavement markers (RPMs) are provided to delineate traffic flow during night-time or inclement weather conditions. The inventory is for a particular side, right or left, of the roadway and in traffic separator or gore areas.

Lists the required number of markers for the particular side of roadway being inventoried. Roadway and Traffic Design Standards should be referenced. RPMs on bridges also are to be inventoried.

For consistency, all RPMs that are located in the center of the roadway, including gore areas, traffic separators, and crosshatch areas shall be recorded against the right roadway. Gore areas, traffic separators, and crosshatch areas on the left side will be added to other left side inventories.

Regardless of type or size, each marker will be counted as one. However, raised pavement markers indicating locations of fire hydrants will not be inventoried, usually blue markers.

### PAVTMARK | NUMBER OF RAISED PAVEMENT MARKERS

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A	N/A	Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of raised pavement markers within each one-mile increment.

As a minimum, there should be 132 markers per stripe mile on 40-foot centers where the stripe line is delineated. More markers will be included in some locations due to two-line no-passing zones, auxiliary lanes, or other areas along the roadway.

If the above characteristic is located at a rest area, ramp, or other applicable sub-section, it is to be inventoried against the applicable sub-section number.

**Value for Number of Raised Pavement Markers:** 4 Bytes: XXXX



## FEATURE 460

### ATTENUATORS

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
R/L	No	No	Point	Yes	Yes
Responsible Party for Data Collection		District Office of Maintenance			

**Definition/Background:** Attenuators are intended to provide a motor vehicle with a cushioned impact area prior to solid obstructions such as parapet walls, bridge columns, sign structures, and signal poles. They are generally constructed of modules or cells containing different types of energy absorption materials such as water, sand, or hex foam.

Lists the condition, date of inspection, installation date, repair date, comments, location, model number, attenuator type, and vehicle direction. All required information can be obtained from Type I and Type II inspection reports.

Attenuators require twice-yearly inspections, a Type 1 inspection in April and a Type 2 inspection in October. A Type 1 inspection is a visual inspection, and a Type 2 inspection is an actual breakdown and cleaning of the attenuator. These inspections are typically performed by field crews and all information pertaining to these inspections may be input by the party performing the inspection or by the MMS personnel responsible for maintaining RCI after notification that the inspections are complete.

If the below characteristics are located at a rest area, ramp, or other applicable sub-section, they are to be inventoried against the applicable sub-section number.

#### ATCONDTN | ATTENUATOR CONDITION

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Use the following code that best describes the condition of the attenuator.

Codes	Descriptions
01	Good
02	Fair
03	Poor
04	Critical

## ATINSPEC | ATTENUATOR INSPECTION DATE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the date of latest attenuator inspection with leading zeros for months and days less than 10. No hyphens or backslash.

**Value for Attenuator Inspection Date:** 8 Bytes: MMDDYYYY

## ATREPAIR | ATTENUATOR REPAIR DATEX

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the date attenuator repaired with leading zeros for months and days less than 10. No hyphens or backslash.

**Value for Attenuator Inspection Date:** 8 Bytes: MMDDYYYY

## ATRMRS1 | ATTENUATOR REMARKS | 1

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the statement concerning attenuator.

**Value for Attenuator Remarks—1:** 20 Bytes: XXXXXXXXXXXXXXXXXXXXX

**ATMRKS2 | ATTENUATOR REMARKS | 2**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the statement concerning attenuator.

**NOTE:** New to the maintenance add screen.

**Value for Attenuator Remarks—2:** 20 Bytes: XXXXXXXXXXXXXXXXXXXXX

**ATTLOCD | ATTENUATOR LOCATION CODE**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Use the following code that describes the location of the attenuator.

Codes	Descriptions
<b>GL</b>	Gore left
<b>GR</b>	Gore right
<b>LS</b>	Left shoulder
<b>MD</b>	Median
<b>RS</b>	Right shoulder

## ATTMODEL | ATTENUATOR MODEL NUMBER

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the model number given in the Attenuator Inventory and Inspection Procedure, Topic No. 850-055-003.

**Value for Attenuator Model Number:** 20 Bytes: XXXXXXXXXXXXXXXXXXXXX

Model #	01—Hi-Dro Cell (sandwich)
G	Color: G—gray, Y—yellow, GN—green, BLK—black, BL—blue
209	Width of first diaphragm (2'-9")
508	Width of last diaphragm (5'-8")
S	S—standard or N—non-standard
8	Number of bays
S	S—wet or D—dry

Model #	02—Hi-Dro Cell (cluster)
300	Width (3'-0")
600	Length (6'-0")
W	W-designates Hi-Dro cluster

Model #	03—G-R-E-A-T System
200	Width of first diaphragm (2'-0")
200	Width of last diaphragm (2'-0")
S	S—standard or N—non-standard
F	
6	Number of bays

Model #	04/05—Sand Crash Cushion (fitch or energite)
002	No. of 200 lb. Modules
004	No. of 400 lb. Modules
004	No. of 700 lb. Modules
0014	No. of 1400 lb. Modules
0021	No. of 2100 lb. Modules
F&E	Fitch & Energite (mixed installation)

Model #	06—Hex Foam Sandwich
209	Width of first diaphragm (2'-9")
508	width of last diaphragm (5'-8")
H	
8	Number of bays
S	S—standard or N—non-standard

Model #	08—QuadGurad System
QS	QS—QuadGuard System
24	Width of diaphragms (24")
5	Number of bays
G	Nose color, G—gray in Florida

Model #	09—BREAKMASTER 350
106	There is only one model number for this system.
106	
BR	
S5	

10—CAT 350
There is only one model number for this system.

Model #	11—REACT 350
75	Design speed: 75, 62, 55, 45 mph
B	B-self-contained backup or S-side mounted anchors
036	Width (36")

Model #	12—ADIEM 350
xx	Number of modules, 06 or 10

## ATTTYPECD | ATTENUATOR TYPE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Use the code that describes the attenuator type.

Code	Type
01	Hi-Dro Cell (sandwich)
02	Hi-Dro Cell (cluster)
03	G-R-E-A-T System
04	Sand Crash Cushion (fitch)
05	Sand Crash Cushion (energite)
06	Hex Foam Sandwich
07	Other
08	QuadGuard System
09	BRAKEMASTER 350
10	CAT 350
11	REACT 350
12	ADIEM 350
13	DRAG-NET
14	TRACC
15	TAU-II
16	QuadGuard Elite
17	Smart Cushion
18	Easi-Cell
19	X-MAS
20	QuadGuard II
21	QuadGuard M10
22	TAU-M



# EXAMPLES



02. Hi-DRO Cell  
(Cluster)



03. G-R-E-A-T System



05. Sand Crash  
Cushion (energite)



06. Hex Foam  
Sandwich



08. Quadguard System



12. Adiem 350



13. Drag-Net



14. TRACC



15. TAU-II



16. Quadguard Elite



17. Smart Cushion



18. Easi-Cell



19. X-MAS



20. Quadguard II



21. QuadGuard M10



22. TAU-M

## ATTYPINS | ATTENUATOR INSPECTION TYPE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Use the following code that describes the attenuator inspection type.

Codes	Descriptions	Codes	Descriptions
<b>01</b>	Type 1 inspection	<b>02</b>	Type 2 inspection

## VEHDIRCD | GENERAL VEHICULAR DIRECTION

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Use the code that describes the vehicle direction.

Codes	Descriptions	Codes	Descriptions
<b>NB</b>	Northbound	<b>EB</b>	Eastbound
<b>SB</b>	Southbound	<b>WB</b>	Westbound

## FEATURE 480

### HIGHWAY SIGNS

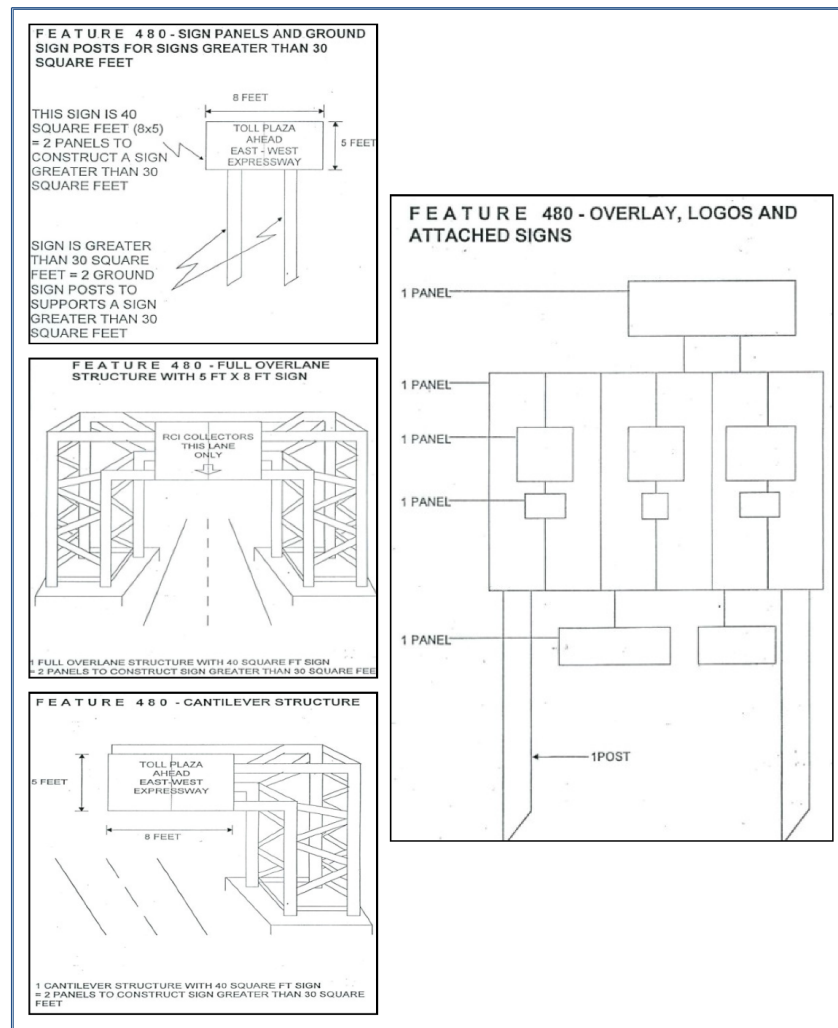
Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
R/L	No	No	Total	No	Yes
Responsible Party for Data Collection		District Office of Maintenance			

**Definition/Background:** Signs are devices intended to convey messages of traffic laws, warn of existing or potentially hazardous conditions on or adjacent to the travel way, direct the traveling public along streets and highways, inform of intersecting routes and direct motorists to town or city destinations.

Describes the type of sign including the structures, supports, and number of panels. Do not inventory overhead or post mounted street name signs, overhead school crossing signs, railroad crossing bucks, signal mast arms, vendor signs on interstate exit ramps, CR signs, or overhead yield on green signs.

Type I Object Markers (a diamond-shaped nine-button panel—Index 17349 and 17353) and Type III Object Markers (a black and yellow striped sign—Index 17359) shall be considered as signs under PANLLT30 when they are post mounted. There may be situations where these diamond shaped—nine button or plain panel—Type I Object Markers will be mounted directly to an object and will be inventoried as Feature 443 Delineators. Type III Object Markers that are yellow and black adhesive shall not be counted as signs.

All signs being maintained by the Department should be inventoried in RCI. If the below characteristics are located at a rest area, ramp, or other applicable sub-section, then they are to be inventoried against the applicable sub-section number.



## CANTSTR | NUMBER OF CANTILEVER STRUCTURES

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Count the number of cantilever structures, and record to the appropriate roadway side.

**Value for Number of Cantilever Structures:** 4  
Bytes: XXXX



## CNPANG30 | NUMBER OF CONSTRUCT PANELS OVERHEAD AND GROUND GREATER THAN 30 SQUARE FEET

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data (for ground signs):** Count the number of panels including overlay, and logo panels, used to construct a ground sign greater than 30 square feet and record to the appropriate roadway side. Also, count the number of posts for ground signs.

**How to Gather this Data (for overhead signs attached to overpasses):** Overhead signs attached to overpasses do not have posts or structures, however, still code the number of panels used to make up this sign. When there are additional panels less than 30 square feet attached to a sign that is greater than 30 square feet still code the smaller panels. They are considered as panels used to construct a greater than 30 square feet sign.





**How to Gather this Data (for turn arrow “ONLY” signs suspended by cables or attached to mast arms):**

Turn arrow “ONLY” signs should be recorded as signs greater than 30 square feet due to the work effort involved. Signs attached to mast arms also should be recorded as signs greater than 30 square feet due to the work effort involved.

**NOTE:** Seams and/or backing strips are found at the connection of individual panels used to construct these signs. The number of panels can easily be determined by viewing the backside of the sign.

**Value for Number of Construct Panels Overhead and Ground Panels Greater Than 30 Square Feet:** 3

Bytes: XXX



### GRPSTG30 | NUMBER OF GROUND SIGN POSTS GREATER THAN 30 SQUARE FEET

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the total number of posts supporting ground signs greater than 30 square feet. Do not include full over lane or cantilever sign supports.

**Value for Number of Ground Sign Posts Greater Than 30 Square Feet:**  
3 Bytes: XXX

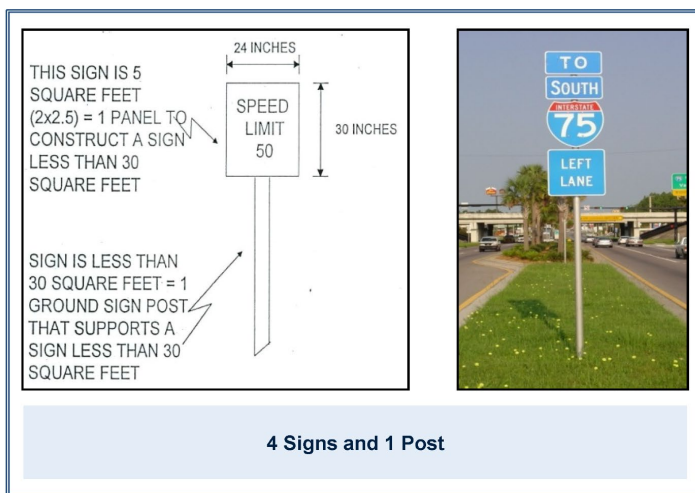


## GRPSTL30 | NUMBER OF GROUND SIGN POSTS LESS THAN 30 SQUARE FEET

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the number of small signs less than or equal to 30 square feet and the number of posts that support them. Separate entries are required for the right and the left sides of the roadway. For consistency, all signs and posts found in medians should be recorded against the right side of the roadway.

**Value for Number of Ground Sign Posts Less Than 30 Square Feet:** 3 Bytes: XXX

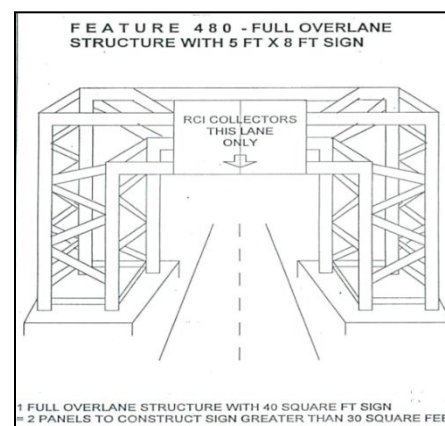


## OVRLNSTR | NUMBER OF FULL OVERLANE STRUCTURES

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the total number of full over lane structures. Over lane structures spanning the right side of the roadway shall be recorded on the right, those spanning over the left side of the roadway shall be recorded on the left. Over lane structures, spanning over the entire roadway, shall be recorded on the right.

**Value for Number of Full Overlane Structures:** 4 Bytes: XXXX



## EXAMPLES



Overlane Structure—One Direction Only



Overlane Structure—Both Directions

## PANLLT30 | GROUND PANELS LESS THAN 30 SQUARE FEET

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Count the number of sign panels that make up a sign less than or equal to 30 square feet within each one-mile increment, and code to the appropriate roadside. This would not include logo panels inventoried under larger signs. Only code posts for ground mounted school crossing signs, permanently mounted emergency detour signs, and object marker signs, yellow and black striped and diamond shaped. Separate entries are required for the right and left sides of the roadway. For consistency, all signs and posts found in medians should be coded against the right side of the roadway.

**Value for Ground Panels Less Than 30 Square Feet:** 4 Bytes: XXXX





**FEATURE 481*****HIGHWAY MAINTENANCE CLASSIFICATION***

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	No	No	Length	No	Yes
<b>Responsible Party for Data Collection</b>		District Office of Maintenance			

**Definition/Background:** Specifically relates to the level of service the roadway gives and is not to be confused with the political boundaries used by Planning. Urban type maintenance would occur in areas having adjacent property of high-density population, industrial, and heavy commercial development. Rural type maintenance would occur in agriculture, low-density population, industrial, light commercial development areas, and areas having unimproved adjacent property. This not the political boundary used by Planning.

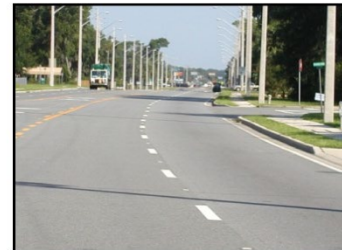
Denotes whether the limits of roadway sections or sub-sections are urban or rural type maintenance.

**HIWMNCLS | HIGHWAY MAINTENANCE CLASSIFICATION**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the characteristic designation of “1” or “2” based on the level of service.

This characteristic is always composite and exact milepoint entries are required. Checks are continuously required to ensure each roadway section or sub-section within the active milepoint limits have this characteristic validated.

**01: Rural****02: Urban**

Break all characteristics at the Highway Maintenance Classification breaks. This will assure the information accumulated for the RCICIA program is not prorated into the wrong Highway Maintenance Classification.

Codes	Descriptions
<b>1</b>	Rural
<b>2</b>	Urban

## Trail Feature

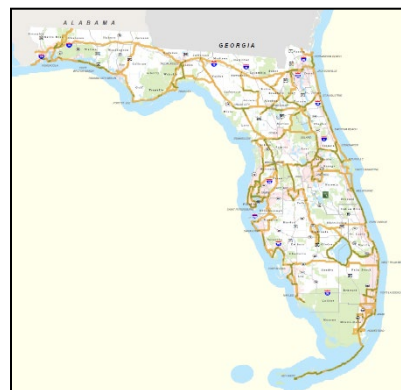
The trail feature is exclusively used for trails.

### FEATURE 801

#### TRAILS

Trail Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	Yes	No	Length	Yes	Yes
Responsible Party for Data Collection		Systems Implementation Office. For further assistance, please contact the SUN Trail Network Manager at (850) 414-4922 or the Transportation Planner at (850) 414-4928.			

**Definition/Background:** The SUN Trail data is derived from the Florida Greenways and Trails System (FGTS) Priority Land Trails Network, overseen by the Florida Department of Environmental Protection's Office of Greenways and Trails, modified by removal of corridors not envisioned as paved trails. A multi-use trail is defined as a paved, shared use path, which is typically 12 feet wide, but may commonly vary from 10 feet to 14 or more feet depending upon constraints or volume of use. In some areas of extreme constraints such as at bridges or in environmentally sensitive areas, a trail may be as narrow as 8 feet. A multi-use trail is differentiated from a sidewalk in that it is generally wider, is part of a larger regional and statewide system of trails, and is accompanied by a higher level of facilities including trailheads, parking, wayside areas, and other amenities. A trail is designed to facilitate mixed-use travel and priority at intersections may be given to trail users. A sidewalk, by contrast, serves a local need and is routinely built as part of the normal bicycle and pedestrian accommodations within a roadway project. Sidewalks are designed primarily for pedestrian use (acknowledging that local codes may permit bikes on sidewalks) with priority at intersections normally given to roadway traffic.



### SUNTRTYP | SUN TRAIL TYPE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Systems Implementation Office/District Office	All multi-use trails, regardless of funding source, located within the SUN Trail Network, both On-and-Off (FDOTs) system.	N/A	N/A

**How to Gather this Data:** Enter the code value assigned to the route and record the beginning and ending milepoints.

Codes	Descriptions
1	Active Trail
2	Pending Trail
3	Dropped SUN Trail GIS Route (Historical)
4	Deleted, Physical removal of Infrastructure

**1—Active Trail:** An Active Trail is defined as an existing multi-use trail, on the SUN Trail network, that is open to the public for bicycling or walking and is physically separated from vehicular traffic. These Active Trails are located both on-and-off (FDOTs) system.

This does not include bike lanes or sidewalks or paved shoulders. Existing trails are compiled from local, state, and federal agencies and organizations.

**2—Pending Trail:** A Pending Trail is defined as a linear corridor that is located on the SUN Trail network and is planned as a multi-use trail, physically separated from vehicular traffic, but the construction phase has not been completed. Pending Trails are not open to the public for bicycling and walking. The linear corridor may be located on-or-off (FDOTs) system.

There may or may not be funding committed to facilitate pre-construction [feasibility planning or corridor study; preliminary and environmental planning (PDE); design (PE); or the acquisition of real property/land/right-of-way (ROW)]; and construction phases. Funding for pre-construction and/or construction phases may be from local, state, federal, or private sources. When the construction phase is complete, the status will change from “pending trail” to “active trail.”



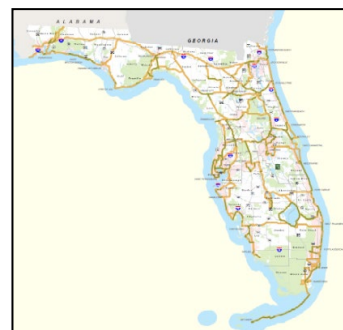
01: Active Trail



2: Pending Trail

**3—Dropped SUN Trail GIS Route (Historical):** Dropped SUN Trail GIS Route are defined as planned corridors that were previously located within the SUN Trail Network but are de-designated and no longer considered to be part of the SUN Trail Network. This historical GIS Route is for mapping purposes and does not reflect current system mileage.

**4—Deleted Trail:** A Deleted Trail is defined as an active trail that will be de-designated when the infrastructure is physically removed, relocated, and a facility replaces it. This does not include temporary closures.



## SUNTRCOR | SUN TRAIL CORRIDOR NAME

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Systems Implementation Office/District Office	All designated SUN Trail facilities.	N/A	N/A

**How to Gather this Data:** Identify the Corridor name (see codes) and record the beginning and ending milepoints. Enter the **MAPID** codes assigned to the facility.

MapID	CORRIDOR
AAFRWT	All Aboard Florida Rail with Trail Corridor
AAFRWT2	All Aboard Florida Rail with Trail Corridor (ECG Alternate Alignment)
ABC	Archer Braid Corridor
ALMTC	South Lake—Minneola Trail Corridor
ARC	Archer Road Corridor
ATHC	Auburndale to Haines City
BEGC	Biscayne-Everglades Greenway Corridor
BHST	Blackwater Heritage Trail Corridor
BHSTN	Whiting Field to Blackwater State Forest Trail Corridor
BICTC	Bi-County Trail Corridor
BPC	Blairstone Parkway Corridor
BST	Bayshore Trail
BSTC	Burnt Store Trail Corridor
BSTCFC	Bonita Springs to Collier—FPL Corridor
BSTTC	Bayshore Treewalk Trail Corridor
BWHTC	Bartow Winter Haven Trail Corridor
BWSF	Blackwater Multi-use Trail Corridor
CADYW	Cady Way Trail Corridor
CC2SW	GF&A Trail Corridor
CCC	Capital Cascades Corridor

MapID	CORRIDOR
CCCC	Courtney Campbell Causeway Corridor
CCGC	Cypress Creek Greenway Corridor
CCSTC	Charlotte County Spine Trail 2 Corridor
CCTC	Capital Circle Trail Corridor
CFG	Cross Florida Greenway Corridor
CHPTC	Cape Haze Pioneer Trail Corridor
CLC	Conservation Levee/SR-84 Corridor
CLHTCA	Charlotte Lee Hendry Trail Cape Alt
COCTC	Clarcona-Ocoee Connector Trail Corridor
COCTPH	Clarcona-Ocoee Connector Trail and Pine Hills Corridor
CPBCGC	Central Palm Beach County Greenway Corridor
CSTC	Cross Seminole Trail Corridor
CTCLC	Core to Coast Loop Corridor
DUKE	Duke Energy Trail Corridor
ECGAIT	East Coast Greenway—Nassau County Corridor
ECGBRE	East Coast Greenway—Brevard Corridor
ECGBRO	East Coast Greenway—Broward Corridor
ECGDC	East Coast Greenway—Duval County Corridor
ECGFA1A	East Coast Greenway—Flagler County Corridor
ECGGA	East Coast Greenway to Georgia Trail Corridor
ECGIA1A	East Coast Greenway—Indian River Corridor
ECGMC	East Coast Greenway—Martin Corridor
ECGMDC	East Coast Greenway—Dade Corridor
ECGPBC	East Coast Greenway—Palm Beach Corridor
ECGSJC	East Coast Greenway—St. Johns County Corridor
ECGSLC	East Coast Greenway—St. Lucie Corridor
ECGVCC	East Coast Greenway—Volusia County Corridor
ECRRTE	East Central Regional Rail Trail
ECRRTW	East Central Regional Rail Trail/ECG Corridor
ECSWGC	Escambia County SW Greenway Corridor
FKOHT	Florida Keys Overseas Heritage Trail Corridor
FFTC	Fort Fraser Trail Corridor
G2NCST	Gainesville to Newberry Trail Corridor
G2SRG	Gainesville to Branford Corridor
GA2NCST	Georgia to Cross City Corridor

MapID	CORRIDOR
GARCON	Garcon Trail to Bagdad Corridor
GHRT	Gainesville to Hawthorne Corridor
GNT	Good Neighbor Trail Corridor
GNWC	Great NW Coastal Trail Corridor
HWY191	Highway 191 (Munson Highway) Corridor
JAXB	Jacksonville Baldwin Corridor
JAXBU	Jacksonville Baldwin to Downtown Corridor
LEGACY	The Legacy Trail Corridor
LOST	Lake Okeechobee Scenic Trail Corridor
LTC	Ludlam Trail Corridor
LUFPC	Lake Underhill—Fairgreen Path Corridor
MARCO	Marco Island Loop Corridor
MIDCTY	Mid County Trail Corridor
MITAC	Merritt Island to Atlantic Corridor
MLC	Miccosukee Link Corridor
MRG	Miami River Greenway
MTLLTC	Milton to Long Leaf Trail Corridor
NAPLES	Naples Bay Greenway Corridor
NBTC	North Bay Trail Corridor
NCST	Nature Coast Trail Corridor
NCST2D	Chiefland to Dunnellon Corridor
NMIPTC	North Merritt Island Pioneer Trail Corridor
NRSR84	New River/SR-84 Greenways Corridor
OBT	Ochlockonee Bay Trail Corridor
ODCC	Orlando Downtown Connector Corridor
OUTC	Orlando Urban Trail Corridor
P2CFG	Palatka to Cross Florida Greenway Corridor
P2HRT	Palatka to Hawthorne Corridor
PHTC	Pine Hills Trail Corridor
PLBST	Palatka to Lake City Corridor
PSAST	Palatka to St. Augustine Corridor
PT	Perimeter Trail
PTC	Pinellas Trail Corridor
ROGG	River of Grass Greenway Corridor
RWTC	Ream Wilson Trail Corridor

MapID	CORRIDOR
SBC	Sarasota Bay Corridor
SCGC	South Coast Greenway Corridor
SCTC	Snapper Creek Trail Corridor
SELGC	Selmon Greenway Connector
SHINGLE	Shingle Creek Regional Trail Corridor
SRRTC	State Road 121 Rail Trail Corridor
SRTC	Sarasota Regional Trail Corridor
SR40TC	State Road 40 Trail Corridor
SRUTC	State Road A1A Urban Trail Corridor
SSCA1	WST to VFST Corridor (South Sumter Connector Alignment Alternative 1)
SSCA2	WST to VFST Corridor (South Sumter Connector Alignment Alternative 2)
STGC	South Tampa Greenway Corridor
STPCC	Starkey to Pinellas County Corridor
STSC	Spring to Spring Corridor
SUNC1	Suncoast Trail Corridor
SUNC2	Suncoast Trail II Corridor
SWC	Seminole Wekiva Corridor
TAMIAMI	Tamiami Trail Corridor
TDCTC	Taylor—Dixie Coastal Trail Corridor
TECOAUB	Teco—Auburndale Trail Corridor
TENC	The Emerald Necklace Corridor
TENORAC	Tenoroc Connector Trail Corridor
TMGC	Tallahassee—Monticello Greenway Corridor
TSMOBT	Tallahassee St. Marks to Ochlockonee Bay Trail Corridor
TSMST	Tallahassee to St. Marks Corridor
TSTC	The Sugar Trail Corridor
TTEC	Titusville to Edgewater Corridor
TTECALT	Titusville to Edgewater Corridor (Proposed ECG Alternate)
TWCC	Taylor to Wakulla County Corridor
UNITY	Unity Trail
US17TC	U.S.-17 Trail Corridor
UTBLC	Urban Tampa Loop Corridor
UTBTC	Upper Tampa Bay Trail Corridor
VFST	Van Fleet State Trail Corridor
WETC	Willow-Ellenton Trail Corridor

MapID	CORRIDOR
WOT	West Orange Trail Corridor
WST	Withlacoochee State Trail Corridor
WTGC	West Tampa Greenway Corridor



# Rail Feature

## FEATURE 901

### *RAIL LINE FACILITY*

Railroad Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	Yes	No	Length	No	Yes
Responsible Party for Data Collection		FMO Office in collaboration with District Offices			

This feature provides information on the rail lines.



## RRCLASST | RAILROAD CLASS TYPE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Freight and Multimodal Operations Office	All designated SIS, emerging SIS, and non-SIS railroad facilities.	N/A	N/A

**Definition/Background:** Associates a class type within the railroad facilities. Effective September 2019.

**How to Gather this Data:** Enter the class type value assigned to the facility.

Codes	Descriptions	Additional Information
<b>I</b>	Class Type I	Annual carrier operating revenues of \$447 million or more, for example CSX.
<b>II</b>	Class Type II	Annual operating revenues less than \$447 million, for example FEC.
<b>III</b>	Class Type III	Annual operating revenues less than \$35 million, for example AN or BAYL

## RRCONAME | RAILROAD COMPANY NAME

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Freight and Multimodal Operations Office	All designated SIS, emerging SIS, and non-SIS railroad facilities.	N/A	N/A

**Definition/Background:** Associates the railway with its company's name.

**How to Gather this Data:** Identify the owning authority (see codes) and record the beginning and ending milepoints. Enter the railroad company name code assigned to the facility.

Codes	Descriptions
<b>AGR</b>	Alabama & Gulf Coast Railway
<b>AN</b>	Apalachicola Northern RR
<b>ATK</b>	Amtrak
<b>BAYL</b>	Bay Line Railroad, LLC
<b>BLF</b>	Brightline Train
<b>CSX</b>	CSX Transportation, Inc.
<b>FCEN</b>	Florida Central Railroad
<b>FCRD</b>	First Coast Railroad
<b>FDT</b>	Florida Dept. of Transportation
<b>FEC</b>	Florida East Coast Railroad
<b>FGA</b>	Florida Gulf & Atlantic Railroad
<b>FMID</b>	Florida Midland Railroad
<b>FNOR</b>	Florida Northern Railroad
<b>FRKX</b>	Florida Rock Industries, Inc.
<b>GFRR</b>	Georgia & Florida Railway
<b>GPAJ</b>	Georgia-Pacific Corporation
<b>GSF</b>	Georgia Southern & Florida RR
<b>JPA</b>	Jacksonville Port Authority
<b>MAUP</b>	Port of Manatee
<b>NS</b>	Norfolk Southern Corporation
<b>ORUZ</b>	Orlando Utilities Commission
<b>PEFX</b>	Progress Energy Florida
<b>POM</b>	Port of Miami
<b>PPBD</b>	Port of Palm Beach Terminal
<b>SCXF</b>	South Central Florida Express

Codes	Descriptions
<b>SGLR</b>	Seminole Gulf Railway
<b>SJRT</b>	St. Johns River Terminal
<b>TELZ</b>	Tampa Electric Company
<b>TTR</b>	Talleyrand Terminal Railroad
<b>USAF</b>	United States Air Force
<b>USGG</b>	United States Government
<b>USNZ</b>	USNZ—United States Navy
<b>USSZ</b>	USSZ—U.S. Sugar Corporation
<b>XFPW</b>	XFPW—Florida Power & Light Company
<b>XIPA</b>	XIPA—Port Everglades Authority

## RRLINETP | RAILROAD LINE TYPE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Freight and Multimodal Operations Office	All designated SIS, emerging SIS, and non-SIS railroad facilities.	N/A	N/A

**Definition/Background:** Associates a rail line type within the railroad facilities.

**How to Gather this Data:** Enter the railroad type value assigned to the facility.

Codes	Railroad Line Types	Descriptions
<b>0</b>	Abandon	Track that is no longer in use.
<b>1</b>	Mainline	Track that is used for through trains or is the principal artery of the system from which branch lines, yards, sidings, and spurs are connected.
<b>2</b>	Siding	A low-speed track section that may connect to through track or to other sidings at either end.
<b>3</b>	Spur (or branch line)	A secondary railway line that branches off a more important through route.
<b>4</b>	Storage	An inactive track with the sole purpose of storing box or equipment cars.
<b>5</b>	Yard	A complex series of railroad tracks off the mainline for storing, or unloading, railroad cars and/or locomotives.
<b>6</b>	Interchange Track	A track used for the transfer of cars from one railroad to another.
<b>8</b>	Connector	Connects one railroad mainline to another railroad mainline or hub.

## RSISFTPX | RAILROAD SIS FACILITY TYPE LEVEL (X=1-9)

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Freight and Multimodal Operations Office, Intermodal System Development, SIS Committee and sub-committees	All designated SIS and emerging SIS railroad facilities and connectors on or off the hub.	N/A	N/A

Grouping	Codes	Descriptions
Rail Facilities	<b>11</b>	Corridor
Rail Facilities	<b>13</b>	Corridor Future
Rail Facilities	<b>14</b>	Corridor Planned Drop
Connectors	<b>21</b>	Connector
Connectors	<b>22</b>	Connector Future
Connectors	<b>23</b>	Connector Planned Drop
Military Access	<b>24</b>	Military Access
Military Access	<b>25</b>	Military Access Future
Military Access	<b>26</b>	Military Access Planned Drop
Strategic Growth (SG) Connectors	<b>27</b>	SG Connector
Strategic Growth (SG) Connectors	<b>28</b>	SG Connector Future
Strategic Growth (SG) Connectors	<b>29</b>	SG Connector Planned Drop
Other	<b>31</b>	Link
Other	<b>41</b>	GIS Route
Other	<b>51</b>	Managed/Express/Reversible

**Definition/Background:** Identifies SIS railroad facilities. Effective September 2019.

**How to Gather this Data:** Enter the code value assigned to the railroad facility.

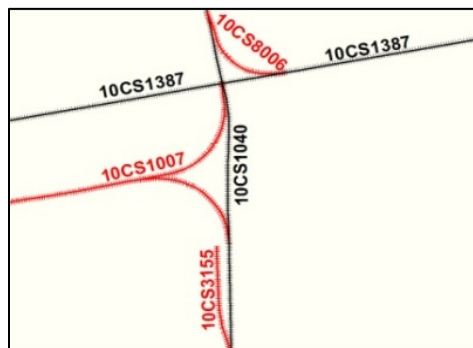
## ROUTEID | RAILROAD ROUTE ID

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Freight and Multimodal Operations Office	All railroad facilities, connectors, spur, siding, yard, and storage.	N/A	N/A

**Definition/Background:** The railroad route ID is for checking the rail roadway ID. This railroad route ID number identifies where features and characteristic information is carried.

**How to Gather this Data:** Railroad route ID is a composite of the county, rail company, and rail line type.

**Value for Railroad Route ID:** 8 Bytes: XXXXXXXX—County (2 bytes)/rail company (2 bytes)/line type (1 byte)/random number (3 bytes)



**Example:** 36CS5233—County/rail company/line type/random number



# CHAPTER 8

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## RCI AND DART REPORTS







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## CHAPTER 8. RCI AND DART REPORTS

# 8

This chapter provides information and user instructions for generating the official roadway mileage and performance reports for the Florida Department of Transportation (FDOT) and quality management and data validation reports available through the Roadway Characteristics Inventory (RCI) application and the Transportation Data & Analytics (TDA) Office's Data Analysis and Reporting for Transportation Systems (DART) web application. The official state roadway mileage and performance data reports are available through the TDA Office's Highway Mileage Report website: <https://www.fdot.gov/statistics/mileage-rpts/default.shtm>. For customized or special report formats not found in this chapter, ad hoc reports can be provided by contacting TDA Office at [CO-TDI@dot.state.fl.us](mailto:CO-TDI@dot.state.fl.us).

## 8.1 Introduction

The RCI system supports the development of the official state mileage and performance reports for FDOT annual performance reporting to the Florida Transportation Commission, state legislature, FDOT, Federal Highway Administration (FHWA), other Government offices, universities, the general public, and the cities and counties. The RCI provides the routes and measures for centerline mileage and vehicle miles traveled reports of the State Highway System (SHS). Public road mileage reported to TDA Office through the FORM TM application is integrated with the RCI mileage data to develop the state certified public mileage report required by FHWA. The TDA Office utilizes RCI and the DART application to perform canned or ad-hoc reports of transportation data for external and internal business data stakeholders. This chapter will outline the available reports distributed on the FDOT website and reports generated through TDA Office applications.

## 8.2 RCI Reports

The RCI application has numerous reports that provide users an expeditious process to generate current and historical roadway information. Users can select from several types of reports to quickly view and analyze roadway data information available within the RCI database. Refer to the RCI User Manual on the TDA Office's Documents & Publications website for further information.

### 8.2.1 *Reports Tab, Standard Sub-tab, Standard Reports Menu*

The Reports tab in the RCI application provides sub-tabs that allow for the preparation of several types of reports. The user does not need to be logged in to RCI to use the Reports tab. If the user is not logged in to RCI, the reports are generated from a general user account. If the user is logged in to RCI, the generated reports are associated with the user's account.

The Reports tab in the RCI application has a Standard Sub-tab that provides a straightforward user interface with a list of predefined reports. The following reports are available on the Standard Reports Menu:

- Feature/Characteristic Summary.
- FM Projects by Roadway ID.
- Feature Change.
- Features Tied to an Anchor.
- Feature/Characteristic Sort.
- Roadway ID.
- Route ID.
- Route Detail.
- Propose New Roadway Section Boundaries.
- Consistency Edits.
- Edits Performed.
- RCI Statistics.
- RCI Breaks.

#### **Feature/Characteristic Summary**

##### *Purpose*

To sum feature or characteristic information for a county, district, or statewide.

## **FM Projects by Roadway ID**

### *Purpose*

To list the Financial Management (FM) projects for a roadway section, including minimal projection information.

## **Feature Change**

### *Purpose*

To list feature changes made for the last seven days, including the day the report was run.

## **Features Tied to an Anchor**

### *Purpose*

To list the anchor(s) and all tied feature and characteristic data for a given roadway ID.

## **Feature/Characteristic Sort**

### *Purpose*

To sort features and characteristics for a roadway ID.

## **Roadway ID**

### *Purpose*

To produce a list of roadway IDs with the option to sort by roadway ID, Overall Status, Overall Description or Type.

## **Route ID**

### *Purpose*

To provide a list of all routes by geographic area or route type. This report does not include details such as roadway segment or milepoints.

## **Route Detail**

### *Purpose*

To arrange lists of roadway segments and supporting information for a given route within a county, district, or statewide.

## **Propose New Roadway Section Boundaries**

### *Purpose*

To prepare a list of features and characteristics that will be affected if a roadway is shortened or lengthened.

## **Consistency Edits**

### *Purpose*

To provide the data that failed the consistency edits for a roadway ID, county, district, or statewide.

## **Edits Performed**

### *Purpose*

To administer a list of edits that are being checked programmatically within the system.

## **RCI Statistics**

### *Purpose*

To present counts and statistics of objects currently available in RCI. The RCI Statistics Report is only available to view within RCI and is not available to download in other file formats.

## **RCI Breaks**

### *Purpose*

To furnish a way to search for specific characteristics by roadway ID, district, or county. The RCI Breaks Report can have limitations with length records in RCI.

### **8.2.2 Historical Sub-tab**

For historical data needs, the Reports tab has a Historical Sub-tab with the following report available on the Historical Reports Menu:

- RCI Breaks History.

## **RCI Breaks History**

### *Purpose*

To present a way to search for specific historical characteristics by roadway ID, district, or county. The RCI Breaks History Report can have limitations with length records in RCI.

## **8.3 DART Reports**

The DART web application provides data validation and reporting for the RCI. Multiple roadway data reports are easily accessed by users through a common interface that also provides feedback to the user on the status of their report processing.

The DART home page can be accessed from the Main tab of the RCI application under “Other Application Links” or directly using the following URL (inside of the FDOT firewall only):

[http://dot-wpap007.fdot.state.fl.us/DART\\_WebApp/HUB.aspx](http://dot-wpap007.fdot.state.fl.us/DART_WebApp/HUB.aspx)

### **8.3.1 RCI Reports**

From the DART home page, use the Reports menu and choose the RCI Reports sub-menu options page. On the District menu, select the required two-digit district number. On the County menu, select the optional county from a list of counties that belong to the selected district. On the Reports menu, select one or more of the available reports.

There are three active RCI Reports:

- RCR04—Off-System Roadway Listing.
- RCR05—Federal Aid Mileage Report.
- RCR06—State Highway System Listing.

#### **RCR04—Off-System Roadway Listing**

##### *Purpose*

To provide a list of roadway segments and supporting information for roadway IDs that are not owned or maintained by FDOT.

#### **RCR05—Federal Aid Mileage Report**

##### *Purpose*

To provide mile-by-mile data by roadway ID on federal aid status, county, district, functional classification, federal system, Interstate or U.S. route number, state or county road number, local name, and the mile point and description of the cross road at each end of each listed segment.

#### **RCR06—State Highway System Listing**

##### *Purpose*

To provide a list of roadway segments and supporting information for roadway IDs that are owned and maintained by FDOT.

### **8.3.2 HPMS Reports**

From the DART home page, use the Reports menu and choose the HPMS Reports sub-menu options page. On the District menu, select the required two-digit district number. On the County menu, select the optional county from a list of counties that belong to the selected district. On the Reports menu, select one or more of the available reports.

There is one active HPMS Report:

- HPR04—HPMS Sample Listing.

#### **HPR04—HPMS Sample Listing**

##### *Purpose*

To provide a list of roadway IDs and supporting information with HPMS Samples and includes urban classification data, functional classification data, and traffic data.

### **8.3.3 Pavement Reports**

From the DART home page, use the Reports menu and choose the Pavement Reports sub-menu options page. On the District menu, select the required two-digit district number. On the County menu, select the optional county from a list of counties that belong to the selected district. On the Reports menu, select one or more of the available reports.

There are five active Pavement Reports:

- PAV01—Off System SIS Roads.
- PAV02—SHS HPMS Samples.
- PAV03—SHS Non-HPMS Samples.
- PAV04—Off System HPMS Samples.
- PAV05—SHS Roads with Breaks (Kang Report).

#### **PAV01—Off System SIS Roads**

##### *Purpose*

To provide a list of roadway segments and supporting information for roadway IDs that are a part of the Strategic Intermodal System (SIS).

#### **PAV02—SHS HPMS Samples**

##### *Purpose*

To provide a list of roadway segments and supporting information such as functional classification data, federal system data, and pavement roughness index.

#### **PAV03—SHS Non-HPMS Samples**

##### *Purpose*

To provide a list of roadway segments and supporting information for designated roadways on the National Highway System (NHS).

#### **PAV04—Off System HPMS Samples**

##### *Purpose*

To provide a list of HPMS Samples that are not on roadways owned and maintained by FDOT and their supporting information such as functional classification data, federal system data, and pavement roughness index.

#### **PAV05—SHS Roads with Breaks (Kang Report)**

##### *Purpose*

To provide a list of roadway segments and supporting information for roadway IDs that are owned and maintained by FDOT with their associated traffic flow breaks.

### **8.3.4 QA Reports**

From the DART home page, use the Reports menu and choose the QA Reports sub-menu options page. On the District menu, select the required two-digit district number. On the QAR menu, select the Begin Date and the End Date. On the RCI menu, select Edit to enter the roadway segment's roadway ID, BMP, and EMP. On the HPMS menu, select Edit to enter the sample's HPMS ID. On the Reports menu, select one or more of the available reports.

There are six active QA Reports:

- QAR01—RCI/HPMS Segment and Field Review List.
- QAR02—QA Field.



- QAR03—QA Office.
- QAR04—QA HPMS.
- QAR05—QA Points.
- QAR06—QA Bike/Ped.

## **QAR01—RCI/HPMS Segment and Field Review List**

### *Purpose*

To provide a list of the features and characteristics of selected roadway segments and HPMS samples for the field assessment portion observed by TDA Office for a Quality Assurance Review (QAR), and to assist districts in preparing a list of RCI and HPMS field data to review for internal quality assurance reviews/checks.

## **QAR02—QA Field**

### *Purpose*

To provide a list of field collected features and characteristics for roadway segments and HPMS samples selected by TDA Office for a QAR to observe district field data collection practices, and to support a district's internal quality assurance review of a selected portion of RCI field collected data.

## **QAR03—QA Office**

### *Purpose*

To provide a list of office collected features and characteristics for roadway segments and HPMS samples selected by TDA Office for a QAR to observe district office collection practices, and to facilitate a district's internal quality assurance review of a selected segment of RCI office collected data.

## **QAR04—QA HPMS**

### *Purpose*

To provide a list of HPMS features and characteristics for HPMS samples selected by TDA Office for a QAR to observe district HPMS sample data collection practices, and to assist a district in internal quality assurance reviews of selected milepoint segments of HPMS sample data available in RCI.

## **QAR05—QA Points**

### *Purpose*

To provide a list of the point features within the roadway segments and HPMS samples selected by TDA Office for a QAR used to observe district data collection practices, and to produce a list of RCI point features for a district internal quality assurance review of selected roadway segment and HPMS sample data.

## **QAR06—QA Bike/Ped**

### *Purpose*

To provide a list of bicycle and pedestrian features and characteristics for roadway segments and HPMS samples selected by TDA Office for a QAR to observe district data collection practices of RCI Feature 216, and to aid a district's internal quality assurance review of selected milepoint roadway segments containing bicycle and pedestrian features and characteristics (RCI Feature 216).

### 8.3.5 RCI Top 30

The TDA Office has created a query for the most requested information from RCI called the RCI Top 30. The RCI Top 30 directly reads the RCI database to obtain the most up to date view of all the roadway sections. From the DART home page, use the Reports menu and choose the Top 30 RCI Reports sub-menu options page. On the District menu, select the required two-digit district number. On the Reports menu, select the available report.

- TOP01—RCI Top 30.
- TOP02—Top 30 Traffic.

#### **TOP01—RCI Top 30**

##### *Purpose*

To provide a list of the 30 most used RCI features and characteristics for roadways with the option to sort by roadway ID, Overall Status, Overall Description or Type.

#### **TOP02—Top 30 Traffic**

##### *Purpose*

To provide a list of the 30 most used RCI features and characteristics for Interstates and U.S. Routes with the option to sort by roadway ID, Overall Status, Overall Description or Type, and AADT.

### 8.3.6 Outdoor Advertising

From the DART home page, use the Reports menu and choose the Outdoor Advertising (Outdoor Ad.) Reports sub-menu options page. On the District menu, select the required two-digit district number. On the County menu, select the optional county from a list of counties that belong to the selected district. On the Reports menu, select the available report.

There is one active Outdoor Advertising Report:

- TOE01—Traffic Ops.

#### **TOE01—Traffic Ops**

##### *Purpose*

To provide a list of roadway IDs where a traffic signal is not coded in RCI correctly at an intersection.

## 8.4 Official State Mileage and Performance Reports

FDOT is required by FHWA to report data information for the SHS. Through this process, FDOT has created several reports that are useful to many agencies and individuals and are located on the FDOT website.

### **8.4.1 City/County Mileage Report**

The City/County Mileage Report contains the centerline miles of roads under the jurisdiction of each city and county in Florida. This number is also broken down into paved and unpaved mileage. The report is produced in the Spring of each year, with data as of September 30 of the previous year. This mileage data is part of a comprehensive report of mileage, traffic, pavement, and other information that FDOT sends to the FHWA each year. The data are used to compile national data, including the need for federal highway funding. They are also used to help determine the share of the national highway funding that Florida will receive.

<https://www.fdot.gov/statistics/mileage-rpts/default.shtm>

### **8.4.2 Public Road Mileage and Travel (DVMT) Report**

A certified letter is created each year from the State Transportation Secretary to the FHWA. The certification letter/report shows how the public road mileage is divided between the SHS, the County Road System, the City Street System, and various federal agencies. An all public roads mileage and daily vehicle miles traveled (DVMT) report sorts the mileage and DVMT by functional classification and urban size.

<https://www.fdot.gov/statistics/mileage-rpts/default.shtm>

### **8.4.3 State Highway System Mileage and Travel (DVMT) Report— (NHS, SHS, SIS, FIHS)**

FDOT reports on SHS Mileage have traditionally been issued as of June 30 and December 31 of each year, with the most current data available on those dates. Since annual average daily traffic (AADT) for a calendar year is not available until several months after December 31, the daily vehicle miles traveled (DVMT) calculation for both the June and the December report uses AADT from the previous calendar year in combination with the Centerline Miles (CLM) as of the current date. This hybrid DVMT is therefore completely correct for neither the current nor the previous calendar year. The new State Highway System Annual Reports are issued once a year, in the Spring after the previous year's AADT data are available. Thus, the DVMT data are consistent and correct for the year being reported.

<https://www.fdot.gov/statistics/mileage-rpts/default.shtm>

These reports are produced in both annual and semi-annual versions for the entire SHS, NHS and SIS. The annual reports (first produced in 2006) include DVMT that are calculated from CLM as of the end of the year of the report and AADT as of the same calendar year of the report. The resulting DVMT are thus calculated consistently, and the annual reports should be used whenever possible. The semi-annual reports are done as of June 30 and December 31 and include DVMT calculated from CLM as of the date of the report and AADT as of the previous calendar year. Because of this mix of dates, the semi-annual report with DVMT that most closely matches the DVMT in the annual report is the one for June of the following year. In other words, to generate a relatively consistent time series of DVMT data from 2005 to 2008, it would be best to use the semi-annual report for June 30, 2006 (to get essentially 2005 DVMT) and then the annual reports for 2006 and thereafter.

### **8.4.4 Florida Federal Aid Systems**

Federal Aid Roads are those on the NHS or functionally classified as Urban Collector / Rural Major Collector, or higher. They are eligible for federal aid from the FHWA for disaster recovery and other purposes. TDA Office updates reports and maps on Federal Aid Roads monthly, using data in the Department's RCI. The Federal Aid

Road Report includes mile-by-mile data on federal aid status, county, district, functional classification, federal system (such as NHS), Interstate or U.S. route number, state or county road number, local name, and the mile point and description of the cross road at each end of each listed segment. The report does not include roads that are planned but unbuilt, physically removed, or recorded under a different roadway identifier.

<https://www.fdot.gov/statistics/fedaid/default.shtm>

#### **8.4.5 *Florida Interchange Report***

This report shows all the interchange numbers and milepost locations for Interstates and most expressways in the state of Florida.

#### **8.4.6 *Florida Mobility Performance Measures Program***

The MPM program is designed to develop and report on multimodal mobility performance measures. Mobility is the ease with which people and goods move throughout their community, state, and world. Mobility is valuable because it provides access to jobs, services, and markets. Transportation's most essential function is to provide mobility for people and goods. By measuring the performance of mobility, FDOT can better understand how to improve it.

<https://www.fdot.gov/planning/fto/mobility/default.shtm>

# CHAPTER 9

## DART APPLICATION/EDITS





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## CHAPTER 9. DART APPLICATION/EDITS

# 9

This chapter provides information on the Roadway Characteristics Inventory (RCI), Highway Performance Monitoring System (HPMS), Traffic, and Traffic Operations data validations (Edits) available through the Transportation Data and Analytics (TDA) Office's Data Analysis and Reporting for Transportation Systems (DART) web application. The Reports associated with the DART application are discussed in Chapter 8 of this handbook.

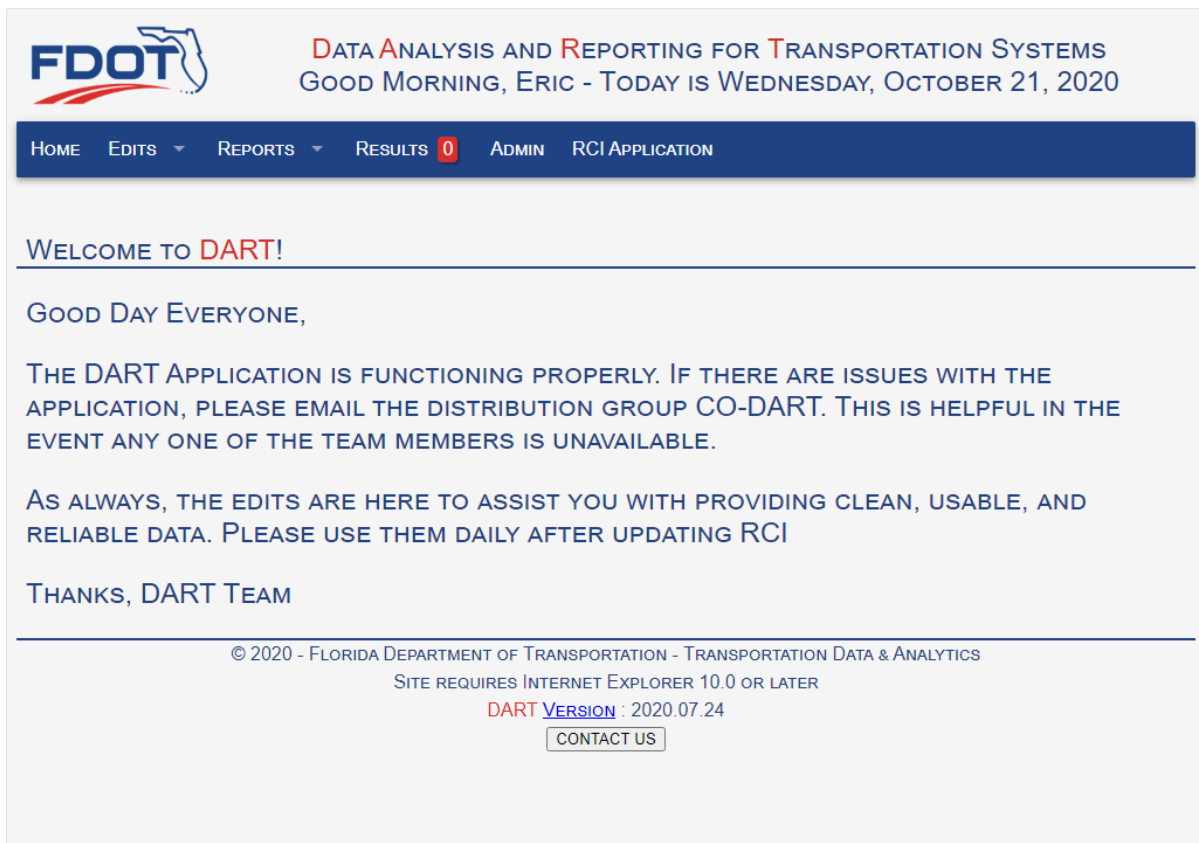
## 9.1 DART

The DART web application provides data validation and reporting for the RCI. DART has a straightforward user interface with a common menu structure consisting of multiple categories. Each category has a common interface that provides feedback to the user on the status of their report processing. This feedback enables users to quickly analyze and update roadway information and allows for the cleanest, most usable, and reliable data reporting possible.

The DART home page can be accessed from the Main tab of the RCI application under “Other Application Links” or directly using the following URL (inside of the FDOT firewall only):

[http://dot-wpap007.fdot.state.fl.us/DART\\_WebApp/HUB.aspx](http://dot-wpap007.fdot.state.fl.us/DART_WebApp/HUB.aspx)

**FIGURE 9.1 | DART LANDING PAGE**



## 9.2 DART Edits

The General Interest Roadway Data (GIRD) Procedure, Topic Number: 525-020-310, requires that on June 30 and December 31, the District will have the RCI database free of errors. This requirement is to ensure that the cleanest data possible is used for the semi-annual mileage reports and the annual HPMS submittal to the Federal Highway Administration (FHWA). The District will make no changes to RCI from December 20 through 31 except to fix errors identified by DART, as necessary.

The data validations (Edits) in DART allow users to identify data compatibility issues (i.e., overlapping milepoints, missing information, conflicting data, etc.) by producing various data validation reports. While the edits do check for missing or incompatible RCI data, they do not verify or ensure the accuracy of the field-collected data. Whenever data entry is complete, the DART Edits should be run to make sure that there are no errors. If errors are present, then the data collector is expected to correct them and rerun the edits.

The following list of active edit error messages may not be current. For a more up-to-date list, use the “View Error Desc.” button on any of the DART Edits pages.

**FIGURE 9.2 | DART—VIEW ERROR DESC.**

The screenshot shows the DART web application interface. At the top is the FDOT logo and the text "DATA ANALYSIS AND REPORTING FOR TRANSPORTATION SYSTEMS". Below this is a navigation bar with links: HOME, EDITS, REPORTS, RESULTS (with a red '0' badge), ADMIN, and RCI APPLICATION. The main content area is titled "MAIN EDITS:". It contains three filter panels: "DISTRICT:" with radio buttons for 01 through 08 (TURNPIKE) and SW (WARNING DATA VOLUME I) (which is selected); "COUNTY:" with a dropdown menu labeled "Select County..."; and "EDITS:" with checkboxes for "M01 - PRELIMINARY RCI/HPMS EDIT" (checked) and "M02 - GAPS AND OVERLAPS" (unchecked). Below the filters are two buttons: "SUBMIT" and "View Error Desc.". A large blue arrow points from the "View Error Desc." button towards the left. At the bottom of the page, there is a footer with copyright information: "© 2020 - FLORIDA DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DATA & ANALYTICS", a note "SITE REQUIRES INTERNET EXPLORER 10.0 OR LATER", the text "DART VERSION : 2020.07.24", and a "CONTACT US" button.

For questions regarding any of these edits, please contact [CO-DART@dot.state.fl.us](mailto:CO-DART@dot.state.fl.us).

## 9.2.1 Main Edits

From the DART home page, use the Edits menu and choose the Main Edits sub-menu options page. On the District menu, select the required two-digit district number. On the County menu, select the optional county from a list of counties that belong to the selected district. On the Edits menu, select one or more of the applicable edits.

There are two sets of active Main Edits:

### M01—Preliminary RCI/HPMS Edit

#### *Purpose*

To ensure the data consistency between the characteristics used in all the other edits. When the Main Edits are not consistent, the validity of the other edits is questionable.

*Description*

Edits M101—M104 compare the overall status (SECTSTAT) with segment status (STATEXPT):

- M101—OVERALL SECTION STATUS AND STATEXPT INCOMPATIBLE
- M102—COMBINATION ROADWAYS (SECTSTAT=12) MUST HAVE AT LEAST ONE ACTIVE SEGMENT
- M104—COMBINATION ROADWAYS (SECTSTAT=12) MUST HAVE MORE THAN ONE TYPE OF STATUS EXCEPTION

Edits M105—M106 enforce the business rules for local roads with FM projects:

- M105—RDWYID SECTION SHOULD BEGIN WITH 9 IF SECTSTAT IS 16
- M106—STATEXPT AND FUNCLASS INCOMPATIBLE

Edit M108 checks that federal highway system code (FAHWYSYS) and functional classification (FUNCLASS) business rules are enforced:

- M108—FAHWYSYS AND FUNCLASS INCOMPATIBLE

Edit M111 checks the segment status on the Strategic Intermodal System (SIS):

- M111—STATEXPT AND SISFCTP1 INCOMPATIBLE

Edits M112—M116 check for missing required characteristics on On-system and Off-system roadways.

- M112—URBSIZE, FUNCLASS, HWYLOCAL MISSING
- M113—MISSING DATA—FAHWYSYS MISSING
- M114—MISSING DATA—URBSIZE MISSING
- M115—MISSING DATA—URBSIZE, FUNCLASS, AND/OR HWYLOCAL
- M116—MISSING DATA—HWYLOCAL MISSING

Edits M117—M119 check for urban area numbers (URBAREA) that are being sunsetted:

- M117—URBAREA CODE IS INCORRECT FOR URBSIZE
- M118—URBAREA IS IN THE INCORRECT COUNTY
- M119—URBAREA IS BEING SUNSETTED

Edits M120—M122 compare mode type (MODE\_TYP\_CD) and system (TRANSYS\_CLS\_CD) for consistency:

- M120—INVALID TRAIL TRANSYS\_CLS\_CD VALUE

- M121—INVALID ROAD TRANSYS\_CLS\_CD VALUE
- M122—INVALID RAIL TRANSYS\_CLS\_CD VALUE

Edits M123—M125 compare system (TRANSYS\_CLS\_CD) with state highway system (ST\_HWY\_SYS\_CD) for consistency:

- M123—INVALID ST\_HWY\_SYS\_CD FOR STATE HIGHWAYS
- M124—INVALID ST\_HWY\_SYS\_CD FOR COUNTY ROADS
- M125—INVALID ST\_HWY\_SYS\_CD FOR CITY STREETS

Edits M126—M128 compare system (TRANSYS\_CLS\_CD) with controlling city (CTRL\_CTY\_CD) for consistency:

- M126—INVALID CTRL\_CTY\_CD FOR STATE HIGHWAY
- M127—INVALID CTRL\_CTY\_CD FOR COUNTY ROADS
- M128—INVALID CTRL\_CTY\_CD FOR CITY STREETS

Edit M129 enforces the business rules for trails and governmental jurisdiction (GOV\_JRDC\_CD):

- M129—INVALID TRAIL GOV\_JRDC\_CD VALUES

Edits M130—M131 enforce the business rules for urban size (URBSIZE):

- M130—INCOMPATIBLE URBSIZE IS RURAL—HWYLOCAL IS URBAN
- M131—INCOMPATIBLE URBSIZE MISSING—URBAREA IS CODED

Edits M132—M134 compare urban size (URBSIZE) and functional classification (FUNCLASS) for consistency:

- M132—INCOMPATIBLE URBSIZE IS RURAL—FUNCLASS IS URBAN
- M134—INCOMPATIBLE URBSIZE IS URBAN—FUNCLASS IS RURAL

Edits M135—M136 compare highway location code (HWYLOCAL) and functional classification (FUNCLASS) for consistency:

- M135—INCOMPATIBLE HWYLOCAL IS RURAL—FUNCLASS IS URBAN
- M136—INCOMPATIBLE HWYLOCAL IS URBAN—FUNCLASS IS RURAL

Edits M137—M138 compare access control type (RDACCESS) and functional classification (FUNCLASS) for consistency:

- M137—FUNCLASS OF 14 SHOULD HAVE RDACCESS OF 3
- M138—INCOMPATIBLE FUNCLASS DOES NOT AGREE WITH RDACCESS

Edits M140—M141 compare urban size (URBSIZE) and urban area (URBAREA) with functional classification (FUNCLASS) for consistency:

- M140—INCOMPATIBLE URBSIZE MISSING—FUNCLASS IS URBAN
- M141—URBAREA MISSING WHERE URBSIZE GREATER THAN 1

Edit M144 enforces the business rule for MPO areas (MPOAREA):

- M144—MPOAREA IS MISSING IN AN MPO COUNTY. IF ROADWAY IS OUTSIDE OF AN MPO AREA, IT SHOULD BE CODED 00—NONE

Edits M146—M147 enforce the business rules for preliminary context classification (CCTXTCLS and CCTXTDTE):

- M146—CCTXTCLS IS REQUIRED ON ALL SHS ROADWAYS
- M147—CCTXTDTE IS REQUIRED ON ALL SHS ROADWAYS

Edit M148 compares preliminary context classification (CCTXTCLS) and access control type (RDACCESS) for consistency:

- M148—IF RDACCESS = 1 THEN CCTXTCLS SHOULD BE LA—LIMITED ACCESS

Edit M149 enforces the business rules for ramp federal category (RAMPFC):

- M149—RAMPFC IS REQUIRED FOR ALL RAMPS

Edits M150—M151 compare travel way along roadway (TRAVLWAY) and functional classification (FUNCLASS) for consistency:

- M150—FUNCLASS-INTERSTATE INCOMPATIBLE WITH TRAVLWAY
- M151—FUNCLASS INCOMPATIBLE WITH TRAVLWAY

Edit M152 compares federal highway system code (FAHWYSYS) and functional classification (FUNCLASS) for consistency:

- M152—FUNCLASS-INTERSTATE INCOMPATIBLE WITH FAHWYSYS

Edit M153 compares strategic highway network code (STGHWNWK) and functional classification (FUNCLASS) for consistency:

- M153—FUNCLASS-INTERSTATE INCOMPATIBLE WITH STGHWNWK

Edits M154—M157 enforce the business rules for travel way along roadway (TRAVLWAY):

- M154—FAHWYSYS-NHS AND TRAVLWAY MISSING
- M155—TRAVLWAY CODED AND FAHWYSYS NOT NHS



- M156—TRAVLWAY 1,2,3 AND STGHWNWK NOT YES
- M157—TRAVLWAY 6 AND SPECSYS MISSING

Edits M160—M163 check for missing required characteristics on local and off-system roadways:

- M160—URBAN FUNCLASS IS MISSING URBSIZE, URBAREA, OR HWYLOCAL
- M161—RURAL FUNCLASS IS MISSING URBSIZE, OR HWYLOCAL
- M162—FAHWYSYS IS INCORRECT FOR LOCAL FUNCLASS
- M163—HWYLOCAL IN CITY IS MISSING PLACECD

Edit M164 enforces the business rules for NHS roads (FAHWYSYS = 5):

- M164—NHS MISSING NHSDATE

Edits M170—M174 enforce the business rules for governmental jurisdiction (GOV\_JRDC\_CD):

- M170—INVALID ROAD GOV\_JRDC\_CD VALUES
- M171—INVALID RAIL GOV\_JRDC\_CD VALUE
- M172—INVALID GOV\_JRDC\_CD FOR STATE HIGHWAYS
- M173—INVALID GOV\_JRDC\_CD FOR COUNTY ROADS
- M174—INVALID GOV\_JRDC\_CD FOR CITY STREETS

Edits M175—M177 compare mode type (MODE\_TYP\_CD) and type (TRVLWAY\_PUR\_CD) for consistency:

- M175—INVALID TRAIL TRVLWAY\_PUR\_CD VALUE
- M176—INVALID ROAD TRVLWAY\_PUR\_CD VALUES
- M177—INVALID RAIL TRVLWAY\_PUR\_CD VALUE

Edits M178—M180 compare mode type (MODE\_TYP\_CD) and overall status (SECT\_STAT\_CD) for consistency:

- M178—INVALID TRAIL STATUS CODE
- M179—INVALID ROAD STATUS CODE
- M180—INVALID RAIL STATUS CODE

Edits M181—M183 compare system (TRANSYS\_CLS\_CD) and overall status (SECT\_STAT\_CD) for consistency:

- M181—INVALID SECT\_STAT\_CD FOR STATE HIGHWAYS

- M182—INVALID SECT\_STAT\_CD FOR COUNTY ROADS
- M183—INVALID SECT\_STAT\_CD FOR CITY STREETS

Edits M184—M187 compare type (TRVLWAY\_PUR\_CD) and overall status (SECT\_STAT\_CD) for consistency:

- M184—INVALID SECT\_STAT\_CD FOR MAINLINE ROAD
- M185—INVALID SECT\_STAT\_CD FOR RAMP
- M186—INVALID SECT\_STAT\_CD FOR FRONTAGE ROAD
- M187—INVALID SECT\_STAT\_CD FOR MANAGED LANE

Edits M188—M196 check RCI View/Update/Delete field values for validity:

- M188—INVALID SECT\_RCI\_EST\_DT VALUE
- M189—INVALID MODE\_TYP\_CD VALUE
- M190—INVALID TRVLWAY\_PUR\_CD VALUE
- M191—INVALID SECT\_NET\_LNGTH\_NUM VALUE
- M192—INVALID BEG\_SECT\_MIPNT\_NUM VALUE
- M193—INVALID BEG\_SECT\_MIPNT\_NUM VALUE
- M194—INVALID END\_SECT\_MIPNT\_NUM VALUE
- M195—INVALID GNRL\_CPS\_DIR\_CD VALUE
- M196—INVALID SECT\_DS VALUE

## **M02—Gaps and Overlaps**

### *Purpose*

To look at select characteristics and compare all entries to find overlaps and duplicates.

### *Description*

Edit M201 checks for missing required characteristics FUNCLASS, HWYLOCAL, RDACCESS, SECTADT, STROADNO, TOLLROAD, and FAHWYSYS:

- M201—DATA GAP EXISTS

Edits M202—M210 compare roadway side (RDWYSIDE) and offset (DIRFMRD) for consistency:

- M202—CHARACTERISTIC HAS OVERLAPPING VALUES ON RDWYSIDE C OFFSET 1 WITH RDWYSIDE R OFFSET 2

- M203—CHARACTERISTIC HAS OVERLAPPING VALUES ON RDWYSIDE C OFFSET 1 WITH RDWYSIDE L OFFSET 3
- M206—CHARACTERISTIC HAS OVERLAPPING VALUES ON RDWYSIDE C OFFSET 1 WITH RDWYSIDE C OFFSET 2
- M207—CHARACTERISTIC HAS OVERLAPPING VALUES ON RDWYSIDE C OFFSET 1 WITH RDWYSIDE C OFFSET 3
- M208—CHARACTERISTIC HAS OVERLAPPING VALUES ON RDWYSIDE C OFFSET 2 WITH RDWYSIDE R OFFSET 2
- M209—CHARACTERISTIC HAS OVERLAPPING VALUES ON RDWYSIDE C OFFSET 3 WITH RDWYSIDE L OFFSET 3
- M210—INVALID COMBINATION OF RDWYSIDE AND OFFSET DIRECTION FROM ROAD

## 9.2.2 RCI Edits

From the DART home page, use the Edits menu and choose the RCI Edits sub-menu options page. On the District menu, select the required two-digit district number. On the County menu, select the optional county from a list of counties that belong to the selected district. On the Edits menu, select one or more of the applicable edits.

There are seven sets of active RCI edits:

### **RCE01—Characteristics**

#### *Purpose*

To identify consistency issues (e.g., missing values) between characteristics. The validity of this edit is contingent on M01 being free of errors.

#### *Description*

Edits R101—R103 compare the overall status (SECTSTAT) with segment status (STATEXPT) for consistency:

- R101—STATEXPT DOES NOT MATCH OVERALL STATUS
- R102—STATEXPT DOES NOT MATCH OVERALL STATUS
- R103—STATEXPT IS MISSING

Edits R104—R115 check for missing required characteristics on non-NHS roadways:

- R104—SHLDTYPE MISSING
- R105—SLDWIDTH SHOULD BE GREATER THAN 0 FOR SHLDTYPE OTHER THAN RAISED CURB
- R106—NOLANES IS MISSING
- R107—SURWIDTH IS MISSING

- R109—TOLLROAD MISSING
- R110—LOCALNAM IS MISSING
- R112—RDMEDIAN EXISTS WITHOUT L/R CHARACTERISTICS
- R113—L/R CHARACTERISTICS EXIST WITHOUT RDMEDIAN
- R114—ROADWAY HAS ISLDTYPE, RDMEDIAN MUST BE PRESENT
- R115—ROADWAY HAS RDMEDIAN, MEDWIDTH SHOULD BE GREATER THAN 0

Edits R116—R118 compare overall status (SECTSTAT), segment status (STATEXPT), and state road number (STROADNO) for consistency:

- R116—STROADNO IS MISSING
- R117—STATE ROAD NUMBER IS INCOMPATIBLE WITH STATEXPT
- R118—ON-SYSTEM ROADS CANNOT HAVE STROADNO WITH CR PREFIX

Edits R119—R127 enforce the business rules for type of road (TYPEROAD) on NHS roadways:

- R119—TYPEROAD IS MISSING
- R120—TYPEROAD OF 0 OR 4 SHOULD NOT HAVE MEDWIDTH
- R121—TYPEROAD OF 0 SHOULD HAVE 2 OR MORE LANES
- R122—TYPEROAD OF 4 SHOULD HAVE 1 OR MORE LANES
- R123—TYPEROAD OF 2 SHOULD HAVE 1 OR MORE LANES PER SIDE
- R124—TYPEROAD OF 2 SHOULD HAVE MEDWIDTH
- R125—TYPEROAD OF 0 OR 4 SHOULD NOT HAVE RDMEDIAN
- R126—TYPEROAD OF 2 SHOULD HAVE MEDIAN AND MEDWIDTH

Edit R128 checks for low AADTs (SECTADT) on NHS roadways with more than 3 lanes:

- R128—ROAD WITH MORE THAN 3 LANES HAS LANE ADT LESS THAN 400

Edit R129 checks for lane widths less than 7 feet:

- R129—LANE WIDTH IS LESS THAN 7 FEET

Edit R132 compares roundabouts & traffic circles (ROTARY) with type of road (TYPEROAD) for consistency:

- R132—ROTARY SHOULD HAVE TYPEROAD OF 4

Edit R135 compares national railroad crossing numbers (RRCROSNO) with bridge numbers (BRIDGENO) for consistency:

- R135—RRCROSNO SHOULD NOT BE ON A BRIDGE

Edit R136 compares type of median barrier (MDBARTYP) with highway median type (RDMEDIAN) for consistency:

- R136—MDBARTYP INCOMPATIBLE WITH RDMEDIAN

Edit R140 enforces the business rules for national railroad crossing numbers (RRCROSNO):

- R140—CHKDIGIT IS WRONG FOR RRCROSNO

Edits R141—R151 enforce the business rules for inside and outside shoulders:

- R141—SLDWIDTH IS GREATER THAN 0 AND SHLDTYPE IS MISSING
- R142—SHLDWTH2 IS GREATER THAN 0 AND SHLDTYP2 IS MISSING
- R143—SHLDWTH3 IS GREATER THAN 0 AND SHLDTYP3 IS MISSING
- R144—ISLDWDTH IS GREATER THAN 0 AND ISLDTYPE IS MISSING
- R145—ISLDWTH2 IS GREATER THAN 0 AND ISLDTYP2 IS MISSING
- R146—ISLDWTH3 IS GREATER THAN 0 AND ISLDTYP3 IS MISSING
- R147—ISLDWDTH SHOULD BE GREATER THAN 0 FOR ISLDTYPE OTHER THAN RAISED CURB
- R148—SHLDTYPE MISSING; REQUIRED BEFORE SHLDTYP2
- R149—SHLDTYP3 EXISTS BUT SHLDTYP2 DOES NOT
- R150—ISLDTYP2 EXISTS BUT ISLDTYPE DOES NOT
- R151—ISLDTYP3 EXISTS BUT ISLDTYP2 DOES NOT
- R154—WHEN THERE ARE LEFT LANES THERE SHOULD BE RIGHT LANES
- R155—WHEN THERE ARE RIGHT LANES THERE SHOULD BE LEFT LANES
- R156—WHEN THERE ARE RIGHT OR LEFT LANES THERE SHOULD NOT BE COMPOSITE LANES
- R158—WHEN TYPEROAD IS 2 (DIVIDED) THERE SHOULD BE LEFT LANES AND RIGHT LANES
- R159—WHEN TYPEROAD IS 2 (DIVIDED) LANES SHOULD NOT BE COMPOSITE
- R160—OFF SYSTEM ROAD ON THE SIS OR NHS REQUIRES MAXSPEED
- R161—BASETHK CODED AND TYPEBASE IS MISSING

- R162—TYPEBASE CODED AND BASETHK IS MISSING
- R165—ROADWAY HAS MEDWIDTH, RDMEDIAN SHOULD BE CODED
- R166—INSIDE SHOULDER TYPE/WIDTH CHARACTERISTICS ARE NOT ALLOWED WHERE RDMEDIAN = '01','35'
- R170—AUXLNTP, AUXLNUM, AND AUXLNWTH SHOULD HAVE ONLY ONE VALUE FOR EACH ROADWAY BEGIN/END POST AND ROADWAY SIDE.
- R171—FEATURE 213 MUST HAVE AUXLNTP, AUXLNUM, AND AUXLNWTH CODED FOR THE SAME ROADWAY SEGMENT AND SIDE
- R175—SIDEWALK WIDTH IS GT 20FT. REVIEW AND IF NECESSARY, CORRECT.
- R176—SIDEWALK SEPARATION IS GT 100FT. REVIEW AND IF NECESSARY, CORRECT.
- R177—OS ROAD NUMBER IS OLDER THAN ONE YEAR
- R178—OS ROAD NUMBER IS INCOMPATIBLE WITH STATEXPT
- R179—U.S. ROUTE NUMBER IS INCOMPATIBLE WITH STATEXPT

#### **RCE02—RDWYSIDE**

##### *Purpose*

To compare the roadway side to the median type for coded characteristics.

##### *Description*

- R201—L/R CHARACTERISTIC EXIST WITHOUT RDMEDIAN
- R202—RDMEDIAN EXIST WITHOUT L/R CHARACTERISTIC

#### **RCE03—TYPEROAD**

##### *Purpose*

To determine consistency between the type of road and characteristics.

##### *Description*

Edits R301—R304 compare roadway side (RDWYSIDE) for all characteristics to TYPEROAD to ensure consistency:

- R301—TYPEROAD DIVIDED / NOLANES COMPOSITE
- R302—TYPEROAD ONEWAY / NOLANES DIVIDED
- R303—TYPEROAD UNDIVIDED / NOLANES DIVIDED
- R304—TYPEROAD COMPOSITE / NOLANES DIVIDED

## **RCE04—Invalid Offset**

### *Purpose*

To determine consistency between the roadway side as compared to the offset direction code that is coded.

### *Description*

Edits R401 and R402 compare roadway side (RDWYSIDE) and offset for consistency:

- R401—ROADWAY SIDE OF RIGHT SHOULD HAVE OFFSET OF 2
- R402—ROADWAY SIDE OF LEFT SHOULD HAVE OFFSET OF 3

## **RCE05—Active Exclusive Roads**

### *Purpose*

To determine if data is missing or requires updating. This is very much like the RCE01 but only for ramps and frontage roads that are active exclusive.

### *Description*

- R501—STATEXPT DOES NOT MATCH OVERALL STATUS
- R502—TYPEROAD SHOULD BE CODED AND NOT HAVE A VALUE OF 1 OR 5
- R503—NOLANES SHOULD NOT BE MISSING
- R504—LANE WIDTH IS LESS THAN 7 FEET
- R505—SURFNUM SHOULD NOT BE MISSING
- R506—SURWIDTH SHOULD NOT BE MISSING
- R507—SHLDTYPE SHOULD NOT BE MISSING
- R508—OUTSIDE SHOULDER WIDTH SHOULD NOT BE MISSING
- R511—FAHWYSYS SHOULD NOT BE CODED
- R512—FUNCLASS SHOULD NOT BE CODED
- R513—STATUS 17 SHOULD NOT HAVE STATE ROAD (SR) NUMBER
- R514—STATUS 07 SHOULD HAVE STROADNO, LOCALNAM OR BOTH
- R577—OS ROAD NUMBER IS OLDER THAN ONE YEAR
- R578—OS ROAD NUMBER IS INCOMPATIBLE WITH STATEXPT
- R579—U.S. ROUTE NUMBER IS INCOMPATIBLE WITH STATEXPT

- R580—STATE ROAD NUMBER IS INCOMPATIBLE WITH STATEXPT

### **RCE06—Bridge Edit**

#### *Purpose*

To determine if bridge numbers are missing, incomplete, or malformed. If the first two digits of the bridge number are not the county number, the district must contact TDA to have an exception added to DART.

#### *Description*

- R601—STRUCTURE NUMBERS SHOULD BEGIN WITH THE COUNTY NUMBER
- R602—STRUCTURE NUMBERS SHOULD NOT HAVE THE LAST 4 DIGITS ALL THE SAME
- R603—STRUCTURE NUMBERS SHOULD BE ONLY 6 DIGITS
- R604—STRUCTURE NUMBERS SHOULD HAVE NO ALPHA CHARACTERS

### **RCE07—On-System MAXSPEED**

#### *Purpose*

To determine if the roadway side is properly coded for maximum speed limit (MAXSPEED). The district must coordinate with Traffic Operations to resolve any inconsistencies.

#### *Description*

- R701—L/R MAXSPEED EXIST WITHOUT RDMEDIAN
- R702—MAXSPEED MISSING ON SHS

## **9.2.3 HPMS Edits**

From the DART home page, use the Edits menu and choose the HPMS Edits sub-menu options page. On the District menu, select the required two-digit district number. On the County menu, select the optional county from a list of counties that belong to the selected district. On the Edits menu, select one or more of the applicable edits.

There are six sets of active HPMS edits:

### **HPE01—Sample Sections**

#### *Purpose*

To determine if data coded for samples are present and consistent with other items coded.

#### *Description*

- H101—CHARACTER COUNT IN FIELD (HPMSID) IS LESS THAN 12
- H102—HPMSIDNO DOES NOT MATCH A COUNTY
- H104—RURAL HPMS SAMPLE SHOULD HAVE TERRAIN



- H105—HORALADQ IS OBSOLETE—REMOVE FROM RCI
- H106—VRTALADQ IS OBSOLETE—REMOVE FROM RCI
- H107—RURAL AND URBAN ARTERIAL SAMPLES SHOULD HAVE AT LEAST 1 CURCLAS A THRU F
- H108—RURAL AND URBAN ARTERIAL HPMS SAMPLES SHOULD HAVE AT LEAST 1 GRACLAS A THRU F
- H109—HPMS SAMPLE WITH INTERSECTIONS SHOULD HAVE TURNLANR
- H110—HPMS SAMPLE WITH INTERSECTIONS SHOULD HAVE TURNLANL
- H111—HPMS SAMPLE WITHOUT INTERSECTIONS SHOULD NOT HAVE TURNLANL
- H112—HPMS SAMPLE WITHOUT INTERSECTIONS SHOULD NOT HAVE TURNLANR
- H113—URBAN HPMS SAMPLE WITH ATGRSIG SHOULD HAVE SIGPREV OF 1, 2, 3, OR 4
- H114—URBAN HPMS SAMPLE WITHOUT ATGRSIG SHOULD NOT HAVE SIGPREV OF 1, 2, 3, OR 4
- H115—URBAN HPMS SAMPLE WITH FULL/PART ACCESS CONTROL SHOULD NOT HAVE AT GRADE INTERSECTIONS
- H118—HPMS SAMPLE SHOULD HAVE SURWIDTH
- H119—HPMS SAMPLE SHOULD HAVE SHLDTYPE
- H120—HPMS SAMPLE SHOULD HAVE SLDWIDTH FOR NON-CURBED SHOULDERS
- H121—HPMS SAMPLE WITH RDMEDIAN SHOULD HAVE MEDWIDTH
- H122—HPMS SAMPLE ON DIVIDED ROADWAY SHOULD HAVE RDMEDIAN
- H123—HPMS SAMPLE ON UN-DIVIDED ROADWAY SHOULD NOT HAVE RDMEDIAN
- H124—HPMS SAMPLE SHOULD HAVE PAVECOND
- H129—HPMS SAMPLE SHOULD HAVE FLWBRKID
- H130—HPMS SAMPLE SHOULD HAVE MAXSPEED
- H131—HPMS SAMPLE SHOULD HAVE PEAKLANE
- H132—RURAL HPMS SAMPLE LESS THAN 4 LANES SHOULD HAVE PEAKLANE SAME AS NOLANES
- H133—RURAL HPMS SAMPLE MORE THAN 3 BI-DIRECTIONAL LANES SHOULD HAVE PEAKLANE SAME AS NOLANES

- H134—RURAL HPMS SAMPLE ON ONE-WAY SHOULD HAVE PEAKLANE SAME AS NOLANES
- H135—URBAN HPMS SAMPLE ON BI-DIRECTIONAL ROADWAY SHOULD NOT HAVE PEAKLANE SAME AS NOLANES
- H136—URBAN HPMS SAMPLE ON ONE-WAY ROADWAY SHOULD HAVE PEAKLANE SAME AS NOLANES
- H137—RURAL HPMS SAMPLE ON UNDIVIDED 2-LANE ROAD SHOULD HAVE SIT1500 AS 00 TO 99
- H142—URBAN HPMS SAMPLE SHOULD HAVE TYPEOP CODED
- H143—HPMS SAMPLE WITH A STRUCTURE (BRIDGENO, UNDPASNO, BOXCULNO, TUNNELNO) CANNOT BE WIDENED TO 9 LANES
- H144—ONLY RURAL HPMS SAMPLE SHOULD HAVE TERRAIN
- H147—HPMS SAMPLE SHOULD NOT HAVE SIT1500 CODED FOR 2 LANE ROADS
- H148—URBAN HPMS SAMPLE SHOULD NOT HAVE SIT1500
- H149—LOADTDEV NOT CODED FOR BRIDGE
- H151—HPMS SAMPLE ON INVALID FUNCLASS \*\* CONTACT CENTRAL OFFICE \*\*
- H152—HPMS SAMPLE WITH WIDPOTNL < 9 SHOULD NOT HAVE WIDOBSTX CODED
- H153—HPMS SAMPLE WITH WIDPOTNL = 9 SHOULD NOT HAVE ANY WIDOBST(A-G) CODED
- H154—HPMS SAMPLE WITH WIDPOTNL < 9 SHOULD HAVE AT LEAST ONE WIDOBST(A-G)
- H155—HPMS SAMPLE SHOULD HAVE AT LEAST ONE WIDOBST(A-G) OR WIDOBSTX MUST BE CODED
- H156—HPMS SAMPLE WITH ANY WIDOBST(A-G) CODED THEN WIDOBSTX SHOULD NOT BE CODED
- H157—HPMS SAMPLE WITH WIDPOTNL=9 CODED THEN WIDOBSTX SHOULD BE 1
- H160—HPMS SAMPLE SHOULD HAVE RDACCESS
- H161—URBAN HPMS SAMPLE WITH FULL ACCESS CONTROL SHOULD HAVE NO PARKING ALLOWED
- H165—HPMS SAMPLE > 3 BI-DIRECTIONAL LANES PEAKLANE SHOULD BE AT LEAST HALF OF NOLANES
- H167—HPMS SAMPLE SHOULD HAVE YRCONST AND/OR YRIMPT

- H168—HPMS SAMPLE SHOULD HAVE SURFCTP
- H170—TYPEROAD NOT DIVIDED WITH LEFT/RIGHT DATA WILL CAUSE ERRORS WITH LANE CALCULATIONS

## **HPE02—Universe Sections**

### *Purpose*

To determine if the RCI data is correct for HPMS Universe data on roadways On and Off the SHS.

### *Description*

- H210—YRIMPT CANNOT BE GREATER THAN CURRENT YEAR
- H211—YRIMPT MUST BE 4 DIGITS—FROM 1988 TO CURRENT YEAR
- H212—YRCONST MUST BE 4 DIGITS—FROM 1900 TO CURRENT YEAR
- H213—YRIMPT MUST BE GREATER THAN YRCONST
- H214—HPMS UNIVERSE SHOULD HAVE NOLANES
- H215—CONFIRM HOV WITH CENTRAL OFFICE HPMS STAFF
- H216—RAMPFC SHOULD NOT BE CODED FOR NON-RAMPS
- H217—RAMPFC SHOULD HAVE URBAREA
- H218—RAMPFC SHOULD HAVE URBSIZE
- H219—TOLLROAD SHOULD HAVE TOLLTYPE CODED
- H220—TOLLROAD SHOULD HAVE TOLLCHGS CODED
- H221—TOLLROAD SHOULD HAVE TOLLNAME CODED
- H222—HPMS UNIVERSE SHOULD HAVE RDACCESS
- H223—YRCONST MUST BE GREATER THAN CURRENT YEAR
- H231—SURFACTP (SURFACE TYPE) IS REQUIRED FOR NHS ROADWAYS

## **HPE04—Sample Breaks (by F330)**

### *Purpose*

To determine if the HPMS sample should be shortened.

### *Description*

- HPE04 generates a report of HPMS samples not being subdivided for administrative or physical breaks.

### **HPE05—Incongruent Lengths**

#### *Purpose*

To determine if the data coded for an HPMS sample is present and consistent with other items coded.

#### *Description*

- HPE05 generates a report of HPMS samples with characteristics not coded for the sample length.

### **HPE06—Curves/Grades by Class Lengths**

#### *Purpose*

To determine if the sum of data coded for grades by class or the curves by class equals the full length of the HPMS Sample.

#### *Description*

- HPE06 generates a report of HPMS samples where the sum of grades by class is not equal to the sample length or the grade by class is not required for the sample's functional classification (FUNCLASS).

### **HPE10—HPMS Sample Number**

#### *Purpose*

To determine if the HPMS Sample number is present and correct.

#### *Description*

- H1001—SECTSTAT HAS A VALUE OF (04 OR 05)
- H1002—HPMS SAMPLE NUMBER ON INVALID STATEXPT IN RCI
- H1003—HPMS SAMPLE NUMBER ON INVALID FUNCLASS IN RCI
- H1004—HPMS SAMPLE NUMBER NOT IN LOOKUP TABLE BUT IN RCI
- H1005—HPMS SAMPLE NUMBER APPROVED FOR DELETION REMOVE SAMPLE DATA
- H1006—HPMS SAMPLE NUMBER APPROVED FOR DELETION HPMSIDNO STILL IN RITA
- H1007—HPMS SAMPLE NUMBER NOT IN RCI BUT IN LOOKUP TABLE

## **9.2.4 Traffic Edits**

From the DART home page, use the Edits menu and choose the Traffic Edits sub-menu options page. On the District menu, select the required two-digit district number. On the County menu, select the optional county from a list of counties that belong to the selected district. On the Edits menu, select one or more of the applicable edits.

There are four sets of active Traffic Edits:

### **TE01—Current AADT Required**

#### *Purpose*

To determine if more current traffic data is needed for Active Off the SHS roadways that are federal-aid eligible based on functional classification, or part of the NHS that have an HPMS Sample with an AADT date older than three years.

#### *Description*

- TE101 generates a report of roadways with an AADT date (AADTDATE) older than 3 years.

### **TE03—AADT Edit**

#### *Purpose*

To determine if updated traffic data is needed for Active Off the SHS roadways that are federal-aid eligible based on functional classification or part of the NHS that have an HPMS sample with an AADT date older than three years.

#### *Description*

- T301—OFF-SYSTEM ROAD—SECTADT, AADTTYPE OR AADTDATE IS MISSING
- T302—ON-SYSTEM ROAD—SECTADT, AADTTYPE OR AADTDATE IS MISSING
- T303—ROAD WITH MORE THAN 3 LANES HAS LANE ADT LESS THAN 400
- T304—BI-DIRECTIONAL ROADWAY WITH EXCESSIVE AVGDFACT
- T305—ONE-WAY ROADWAY MUST HAVE AVGDFACT = 99.99

### **TE04—Traffic Breaks**

#### *Purpose*

To determine if the location traffic station numbers are consistent with the flow break ID that they are assigned to.

#### *Description*

- T401—INACTIVE TRFSTANO SHOULD NOT MATCH FLWBRKID
- T403—TRFSTANO SHOULD NOT BE AT ENDING MILEPOINT
- T404—TRSTATYP WITHOUT TRFSTANO
- T405—TRFSTANO WITHOUT TRSTATYP
- T406—ACTIVE COUNTERS SHOULD NOT BE ON DELETED, INACTIVE, OR PENDING

- T411—TRFSTANO MILEPOINT SHOULD NOT SHARE AN INTERSECTION OR SECTION END POINT
- T420—MISSING TRFSTANO ON LOCAL, SIS, OR NHS
- T421—MISSING FLWBRKID ON INTERCHANGE RAMP

### **TE05—Traffic Flow Breaks**

#### *Purpose*

To check for traffic count station assigned to breaks (FLWBRKID) that have a type of road (TYPEROAD) of 1-way and 2-way.

#### *Description*

- T501—FLWBRKID SHOULD NOT HAVE TYPEROAD OF 1-WAY AND 2-WAY
- T502—TRFBRKCD SHOULD NOT BE ON A FLWBRKID SECTION
- T503—TRAFFIC FLOW BREAK REQUIRED FOR NHS, NHFN, STP, SHS, SIS, AND RUR MIN COLL

## **9.2.5 Traffic Operations Edits**

From the DART home page, use the Edits menu and choose the Traffic-Ops Edits sub-menu options page. On the District menu, select the required two-digit district number. On the County menu, select the optional county from a list of counties that belong to the selected district. On the Edits menu, select one or more of the applicable edits.

There is one set of active Traffic Operations edits:

### **TOE01—Traffic Ops**

#### *Purpose*

To determine if traffic signals are properly coded for types of traffic signals (SIGNALTY) and non-counted signals (SIGNALNC) that have an intersection. The districts must coordinate with Traffic Operations to resolve any inconsistencies.

#### *Description*

- O101—TRAFFIC SIGNAL NOT AT INTERSECTION
- O102—MID-BLOCK TRAFFIC SIGNAL CANNOT NOT BE AT INTERSECTION
- O103—TRAFFIC SIGNAL CANNOT NOT BE ON LIMITED ACCESS FACILITY

# A P P E N D I C E S

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A – M







## A. RCI INVENTORY MATRICES

## ACTIVE ON THE STATE HIGHWAY SYSTEM

Mainlines and Frontage Roads based on Functional Classification; see legend for caveats.

Office	Feature	Feature Name	Characteristic	HPMS Item No.	Functional Classification							
					01, 11-Interstate PA	02, 12-Freeway/Expressway—PA	04, 14-Other—PA	06, 16-Minor Arterial	07, 17-Major Collector	08, 18-Minor Collector	09, 19-Local	
					✓	✓	✓	✓	✓	✓	✓	
TDA	111	State Road System/ County Road System	STROADNO	17, 18, 19	✓	✓	✓	✓	✓	✓	✓	
			STRDNUM2	20	✓	✓	✓	✓	✓	✓	✓	
TDA	113	AASHTO Systems U.S. Route/Interstate	USROUTE	17, 18, 19	✓	✓	✓	✓	✓	✓	✓	
			USROUTE2	20	✓	✓	✓	✓	✓	✓	✓	
TDA	112	Federal Systems	FAHWYSYS	64	✓	✓	✓	✓	✓	✓	✓	
			NHSCID	64	✓	✓	✓	✓	✓	✓	✓	
			NHSDATE	64	✓	✓	✓	✓	✓	✓	✓	
			OLDFASYS	N/A	✓	✓	✓	✓	✓	✓	✓	
			SPECSYS	64	✓	✓	✓	✓	✓	✓	✓	
			STGHWNWK	65	✓	✓	✓	✓	✓	✓	✓	
			TRAVLWAY	64, 65	✓	✓	✓	✓	✓	✓	✓	
TDA	114	Local Name	LOCALNAM	N/A	✓	✓	✓	✓	✓	✓	✓	
TDA	115	Special Designations	SCENEHWY	N/A	✓	✓	✓	✓	✓	✓	✓	
			SCENEDATE	N/A	✓	✓	✓	✓	✓	✓	✓	
			SCENEEXT	N/A	✓	✓	✓	✓	✓	✓	✓	
TDA	117	FIPS Designated Boundaries	FIPSPLCD	N/A	✓	✓	✓	✓	✓	✓	✓	
			FIPSUACD	2	✓	✓	✓	✓	✓	✓	✓	
TDA	118	Highway Performance Monitoring Systems (HPMS Samples)	ATGROTHR	33		S	S	S	S	U		
			ATGRSIG	31		S	S	S	S	U		
			ATGRSTOP	32		S	S	S	S	U		
			CURCLASx	43	S	S	S	R				
			GRACLASx	45	S	S	S	R				
			HPMSIDNO	KEY	S	S	S	S	S	U		
			LOADTDEV	KEY	S	S	S	S	S	U		
			PEAKLANE	10	S	S	S	S	S	U		
			SIGPREV	29	U	U	U	U	U	U		
			SIT1500	46	R	R	R	R	R			
			TERRAIN	44	R	R	R	R	R			
			TURNLANL	13	U	U	U	U	U	U		
			TURNLANR	12	U	U	U	U	U	U		
			TYPEOP	40	U	U	U	U	U	U		
			WIDOBST_ (A-F, X)	41	S	S	S	S	S	U		
			WIDPOTNL	42	S	S	S	S	S	U		

Office	Feature	Feature Name	Characteristic	HPMS Item No.	Functional Classification									
					<div>01, 11-Interstate PA</div> <div>  02, 12-Freeway/Expressway—PA</div> <div>    04, 14-Other—PA</div> <div>      06, 16-Minor Arterial</div> <div>        07, 17-Major Collector</div> <div>          08, 18-Minor Collector</div> <div>            09, 19-Local</div>									
					✓	✓	✓	✓	✓	U				
TDA	119	HPMS Universe (Entire Roadway)	BASETHIK	60	✓	✓	✓	✓	✓	U				
			BASETYPE	59	✓	✓	✓	✓	✓	U				
			FLEXTHIK	58	✓	✓	✓	✓	✓	U				
			HOVNUMLN	9	✓	✓	✓	✓	✓	U				
			HOVTYPE	8	✓	✓	✓	✓	✓	U				
			IRIDATE	47	✓	✓	✓	✓	✓	U				
			OVRYTHIK	56	✓	✓	✓	✓	✓	U				
			RAMPFC	1	CODE ONLY ON ACTIVE EXCLUSIVE									
			RIGDTHIK	57	✓	✓	✓	✓	✓	U				
			SURFACTP	49	✓	✓	✓	✓	✓	U				
			TOLLCHGS	15	✓	✓	✓	✓	✓	✓	✓			
			TOLLTYPE	16	✓	✓	✓	✓	✓	✓	✓			
			YRCONST	55	✓	✓	✓	✓	✓	U				
			YRIMPT	54	✓	✓	✓	✓	✓	U				
TDA	120	Type of Road	RTESGNCD	18	✓	✓	✓	✓	✓	✓	✓			
			TYPEROAD	3	✓	✓	✓	✓	✓	✓	✓			
TDA	121	Functional Classification	FUNCLASS	1	✓	✓	✓	✓	✓	✓	✓			
			PROFUNCL	N/A	✓	✓	✓	✓	✓	✓	✓			
TDA	122	Facility Classification	RDACCESS	5	✓	✓	✓	✓	✓	✓	✓			
			TOLLROAD	15	✓	✓	✓	✓	✓	✓	✓			
			TOLLNAME	N/A	✓	✓	✓	✓	✓	✓	✓			
			OWNAUTH	N/A	✓	✓	✓	✓	✓	✓	✓			
TDA	124	Urban Classification	HWYLOCAL	N/A	✓	✓	✓	✓	✓	✓	✓			
			MPOAREA	N/A	✓	✓	✓	✓	✓	✓	✓			
			PLACECD	N/A	✓	✓	✓	✓	✓	✓	✓			
			URBAREA	2	✓	✓	✓	✓	✓	✓	✓			
			URBSIZE	N/A	✓	✓	✓	✓	✓	✓	✓			
TDA	125	Adjacent Land Classification	ROUGHIND	47	✓	✓	✓	✓	✓	✓	✓			
TDA	126	Context Classification	CCTXTCLS	N/A	✓	✓	✓	✓	✓	✓	✓			
			CCTXTDTE	N/A	✓	✓	✓	✓	✓	✓	✓			
			FCTXTCLS	N/A	✓	✓	✓	✓	✓	✓	✓			
			FCTXTDTE	N/A	✓	✓	✓	✓	✓	✓	✓			

Office	Feature	Feature Name	Characteristic	HPMS Item No.	Functional Classification									
					<div>01, 11-Interstate PA</div> <div>02, 12-Freeway/Expressway—PA</div> <div>04, 14-Other—PA</div> <div>06, 16-Minor Arterial</div> <div>07, 17-Major Collector</div> <div>08, 18-Minor Collector</div> <div>09, 19-Local</div>									
					✓	✓	✓	✓	✓	✓	✓			
TDA	138 & 139	Roadway Realignment and Associated Roadway	BEGSECPT	N/A	✓	✓	✓	✓	✓	✓	✓			
			ENDSECPT	N/A	✓	✓	✓	✓	✓	✓	✓			
			RDWYD	N/A	✓	✓	✓	✓	✓	✓	✓			
TDA	140	Section Status Exception	OSDATE	N/A	✓	✓	✓	✓	✓	✓	✓			
			STATEXPT	6	✓	✓	✓	✓	✓	✓	✓			
TDA	141 & 143	Stationing Exception and Associated Roadway	BEGSECPT	N/A	✓	✓	✓	✓	✓	✓	✓			
			ENDSECPT	N/A	✓	✓	✓	✓	✓	✓	✓			
			RDWYID	N/A	✓	✓	✓	✓	✓	✓	✓			
TDA	142	Managed Lanes and Associated Roadway	CMLBMP	N/A	✓	✓	✓	✓	✓	✓	✓			
			CMPEMP	N/A	✓	✓	✓	✓	✓	✓	✓			
			CMLRDWY	N/A	✓	✓	✓	✓	✓	✓	✓			
			LMLBMP	N/A	✓	✓	✓	✓	✓	✓	✓			
			LMLEMP	N/A	✓	✓	✓	✓	✓	✓	✓			
			LMLRDWY	N/A	✓	✓	✓	✓	✓	✓	✓			
			MAINBMP	N/A	CODE ONLY ON THE MANAGED LANE									
			MAINEMP	N/A										
			MAINRDWY	N/A										
			RMLBMP	N/A	✓	✓	✓	✓	✓	✓	✓			
			RMLEMP	N/A	✓	✓	✓	✓	✓	✓	✓			
			RMLRDWY	N/A	✓	✓	✓	✓	✓	✓	✓			
TDA	147	Strategic Intermodal System (SIS)	SISFCTPx	N/A	✓	✓	✓	✓	✓	✓	✓			
TDA	212	Thru Lanes	NOLANES	7	✓	✓	✓	✓	✓	✓	✓			
			SURWIDTH	34	✓	✓	✓	✓	✓	✓	✓			
TDA	213	Auxiliary Lanes	AUXLNTYP	N/A	✓	✓	✓	✓	✓	✓	✓			
			AUXLNUM	N/A	✓	✓	✓	✓	✓	✓	✓			
			AUXLNWTH	N/A	✓	✓	✓	✓	✓	✓	✓			
TDA	214	Outside Shoulders	MLTRFSEP	N/A	✓	✓	✓	✓	✓	✓	✓			
			SHLDTYPE	37	✓	✓	✓	✓	✓	✓	✓			
			SHLDTYPx	37	✓	✓	✓	✓	✓	✓	✓			
			SLDWIDTH	38	✓	✓	✓	✓	✓	✓	✓			
			SHLDWTHx	38	✓	✓	✓	✓	✓	✓	✓			

Office	Feature	Feature Name	Characteristic	HPMS Item No.	Functional Classification										
					01, 11-Interstate PA	02, 12-Freeway/Expressway—PA	04, 14-Other—PA	06, 16-Minor Arterial	07, 17-Major Collector	08, 18-Minor Collector	09, 19-Local				
					✓	✓	✓	✓	✓	✓	✓				
TDA	215	Medians	MDBARTYP	35	✓	✓	✓	✓	✓	✓	✓				
			MEDWIDTH	36	✓	✓	✓	✓	✓	✓	✓				
			RDMECHAN	35	✓	✓	✓	✓	✓	✓	✓				
TDA	216	Bike Lanes and Pedestrian Sidewalks	BIKELNCD	N/A	✓	✓	✓	✓	✓	✓	✓				
			BIKSLTCD	N/A	✓	✓	✓	✓	✓	✓	✓				
			SDWLKBCD	N/A	✓	✓	✓	✓	✓	✓	✓				
			SHRDPTH	N/A	✓	✓	✓	✓	✓	✓	✓				
			SIDWLKWD	N/A	✓	✓	✓	✓	✓	✓	✓				
TDA	219	Inside Shoulders	ISLDTYPE	37	✓	✓	✓	✓	✓	✓	✓				
			ISLDTYPx	N/A	✓	✓	✓	✓	✓	✓	✓				
			ISLDWDTH	N/A	✓	✓	✓	✓	✓	✓	✓				
			ISLDWTHx	N/A	✓	✓	✓	✓	✓	✓	✓				
TDA	220	Non Curve Intersection Point	NCPTINT	N/A	CP	CP	CP	CP	CP	CP	CP				
TDA	221	Horizontal Curve	BEARING	N/A	CP	CP	CP	CP	CP	CP	CP				
			HRZCANGL	N/A	CP	CP	CP	CP	CP	CP	CP				
			HRZDGRV	N/A	CP	CP	CP	CP	CP	CP	CP				
			HRZPTINT	N/A	CP	CP	CP	CP	CP	CP	CP				
TDA	230	Surface Description	PAVECOND	48	✓	✓	✓	✓	✓	✓	✓				
			PAVINDEK	N/A	✓	✓	✓	✓	✓	✓	✓				
			SURFNUM	N/A	✓	✓	✓	✓	✓	✓	✓				
TDA	232	Surface Layers	FRICTCSE	N/A	CP	CP	CP	CP	CP	CP	CP				
			SURFLxTH	N/A	CP	CP	CP	CP	CP	CP	CP				
			SURFLAYx	N/A	CP	CP	CP	CP	CP	CP	CP				
TDA	233	Base	BASETHK	N/A	CP	CP	CP	CP	CP	CP	CP				
			TYPEBASE	N/A	CP	CP	CP	CP	CP	CP	CP				
TDA	251	Intersections	BEGSECNM	N/A	✓	✓	✓	✓	✓	✓	✓				
			ENDSECNM	N/A	✓	✓	✓	✓	✓	✓	✓				
			INTSDIRx	N/A	✓	✓	✓	✓	✓	✓	✓				
			INTSRTPx	N/A	O	O	O	O	O	O	O				
TDA	252	Interchanges	EXITNO	N/A	✓	✓	✓	✓	✓	✓	✓				
			INTERCHG	N/A	✓	✓	✓	✓	✓	✓	✓				

Office	Feature	Feature Name	Characteristic	HPMS Item No.	Functional Classification									
					<div>01, 11-Interstate PA</div> <div>02, 12-Freeway/Expressway—PA</div> <div>04, 14-Other—PA</div> <div>06, 16-Minor Arterial</div> <div>07, 17-Major Collector</div> <div>08, 18-Minor Collector</div> <div>09, 19-Local</div>									
					✓	✓	✓	✓	✓	✓	✓			
TDA	253	Railroad Crossings	CHKDIGIT	N/A	✓	✓	✓	✓	✓	✓	✓			
			RRCROSNO	N/A	✓	✓	✓	✓	✓	✓	✓			
TDA	258	Structures	BOXCULNO	4	✓	✓	✓	✓	✓	✓	✓			
			BRIDGENO	4	✓	✓	✓	✓	✓	✓	✓			
			FACCROSS	N/A	✓	✓	✓	✓	✓	✓	✓			
			TUNNELNO	4	✓	✓	✓	✓	✓	✓	✓			
			UNDPASNO	N/A	✓	✓	✓	✓	✓	✓	✓			
TOPS	311	Speed Limits	DTESZAPP	N/A	✓	✓	✓	✓	✓	✓	✓			
			DTESZIMP	N/A	✓	✓	✓	✓	✓	✓	✓			
			MAXSPEED	14	✓	✓	✓	✓	✓	✓	✓			
			MINSPEED	N/A	✓	✓	✓	✓	✓	✓	✓			
TDA	326	Traffic Monitoring Sites	TRFSTANO	N/A	✓	✓	✓	✓	✓	✓	✓			
			TRSTATYP	N/A	✓	✓	✓	✓	✓	✓	✓			
TDA	330	Traffic Flow Break Stations	FLWBRKID	N/A	✓	✓	✓	✓	✓	✓	✓			
			TRFBRKCD	N/A	✓	✓	✓	✓	✓	✓	✓			
TDA	331	Traffic Flow Breaks (Traffic Counts)	AADTDATE	N/A	✓	✓	✓	✓	✓	✓	✓			
			AADTTYPE	N/A	✓	✓	✓	✓	✓	✓	✓			
			AVGDFACT	27	✓	✓	✓	✓	✓	✓	✓			
			AVGKFACT	26	✓	✓	✓	✓	✓	✓	✓			
			AVGTFACT	23, 25	✓	✓	✓	✓	✓	✓	✓			
			SECTADT	21, 22, 24	✓	✓	✓	✓	✓	✓	✓			

Legend		
[BLANK]	Not required	Or
✓	Full Extent, required where characteristic exists	Or
(1)	Inside Urbanized Areas of 200,000 & above	Or
(2)	SIS, NHS, FM Projects, or Toll requirement	Or
(3)	Limited Access	Or
CP	Construction Plans	Or
O	Optional but required for entire district for consistency	Or
R	Rural HPMS Sample	Or
S	HPMS Samples (rural and urban)	Or
U	Urban HPMS Sample	

## ACTIVE EXCLUSIVE (ON OR OFF THE SHS)

*Ramps, Frontage Roads (w/o Funclass), & Managed Lanes; see legend for caveats.*

Office	Feature	Feature Name	Characteristic	HPMS Item No. /FE, SP, OR FC	TRAVELWAY PURPOSE CODES (TYPE OF A/E)									
					INTERCHANGE RAMP									
					NON-INTERCHANGE RAMP (E.G., TO REST AREA)									
					FRONTAGE ROAD (W/O FUNCLASS)									
					MANAGED LANE									
					✓	✓	✓	✓						
TDA	111	State Road System/ County Road System	STROADNO	17, 18, 19	✓	✓	✓	✓						
			STRDNUM2	20	✓	✓	✓	✓						
TDA	113	AASHTO Systems U.S. Route/Interstate	USROUTE	17, 18, 19	✓	✓	✓	✓						
			USROUTE2	20	✓	✓	✓	✓						
TDA	112	Federal Systems	FAHWYSYS	64	✓	✓	✓	✓						
			NHSCID	64	✓	✓	✓	✓						
			NHSDATE	64	✓	✓	✓	✓						
			OLDFASYS	N/A	✓	✓	✓	✓						
			SPECSYS	64	✓	✓	✓	✓						
			STGHWNWK	65	✓	✓	✓	✓						
			TRAVLWAY	64, 65	✓	✓	✓	✓						
TDA	114	Local Name	LOCALNAM	N/A	✓	✓	✓	✓						
TDA	115	Special Designations	SCENEHWY	N/A	✓	✓	✓	✓						
			SCENEDATE	N/A	✓	✓	✓	✓						
			SCENEEXT	N/A	✓	✓	✓	✓						
TDA	117	FIPS Designated Boundaries	FIPSPLCD	N/A	✓	✓	✓	✓						
			FIPSUACD	2	✓	✓	✓	✓						
TDA	118	Highway Performance Monitoring Systems (HPMS Samples)	ATGROTHR	33										
			ATGRSIG	31										
			ATGRSTOP	32										
			CURCLASx	43										
			GRACLASx	45										
			HPMSIDNO	KEY										
			LOADTDEV	KEY										
			PEAKLANE	10										
			SIGPREV	29										
			SIT1500	46										
			TERRAIN	44										
			TURNLANL	13										
			TURNLANR	12										
			TYPEOP	40										
			WIDOBST_ (A-F, X)	41										
			WIDPOTNL	42										

Office	Feature	Feature Name	Characteristic	HPMS Item No. /FE, SP, OR FC	TRAVELWAY PURPOSE CODES (TYPE OF A/E)							
					INTERCHANGE RAMP							
					NON-INTERCHANGE RAMP (E.G., TO REST AREA)							
					FRONTAGE ROAD (W/O FUNCLASS)							
					MANAGED LANE							
					✓	✓	✓	✓				
TDA	119	HPMS Universe (Entire Roadway)	BASETHIK	60								
			BASETYPE	59								
			FLEXTHIK	58								
			HOVNUMLN	9								
			HOVTYPE	8								
			IRIDATE	47								
			OVRYTHIK	56								
			RAMPFC	1	✓	✓	✓					
			RIGDTHIK	57								
			SURFACTP	49								
			TOLLCHGS	15								
			TOLLTYPE	16								
			YRCONST	55								
			YRIMPT	54								
TDA	120	Type of Road	RTESGNCD	18	✓	✓	✓	✓				
			TYPEROAD	3	✓	✓	✓	✓				
TDA	121	Functional Classification	FUNCLASS	1				✓				
			PROFUNCL	N/A	✓	✓	✓	✓				
TDA	122	Facility Classification	RDACCESS	5	✓	✓	✓	✓				
			TOLLROAD	15	✓	✓	✓	✓				
			TOLLNAME	N/A	✓	✓	✓	✓				
			OWNAUTH	N/A	✓	✓	✓	✓				
TDA	124	Urban Classification	HWYLOCAL	N/A	✓	✓	✓	✓				
			MPOAREA	N/A	✓	✓	✓	✓				
			PLACECD	N/A	✓	✓	✓	✓				
			URBAREA	2	✓	✓	✓	✓				
			URBSIZE	N/A	✓	✓	✓	✓				
TDA	125	Adjacent Land Classification	ROUGHIND	47	✓		✓	✓				
TDA	126	Context Classification	CCTXTCLS	N/A								
			CCTXTDTE	N/A								
			FCTXTCLS	N/A								
			FCTXTDTE	N/A								





Office	Feature	Feature Name	Characteristic	HPMS Item No. /FE, SP, OR	TRAVELWAY PURPOSE CODES (TYPE OF A/E)							
					INTERCHANGE RAMP							
					NON-INTERCHANGE RAMP (E.G., TO REST AREA)							
					FRONTAGE ROAD (W/O FUNCLASS)							
					MANAGED LANE							
					✓	✓	✓	✓				
TDA	215	Medians	MDBARTYP	35	✓	✓	✓	✓				
			MEDWIDTH	36	✓	✓	✓	✓				
			RDMEDIAN	35	✓	✓	✓	✓				
TDA	216	Bike Lanes and Pedestrian Sidewalks	BIKELNCD	N/A	✓	✓	✓	✓				
			BIKSLTCD	N/A	✓	✓	✓	✓				
			SDWLKBCD	N/A	✓	✓	✓	✓				
			SHRDPTH	N/A	✓	✓	✓	✓				
			SIDWLKWD	N/A	✓	✓	✓	✓				
TDA	219	Inside Shoulders	ISLDTYPE	37	✓	✓	✓	✓				
			ISLDTYPx	N/A	✓	✓	✓	✓				
			ISLDWDTH	N/A	✓	✓	✓	✓				
			ISLDWTHx	N/A	✓	✓	✓	✓				
TDA	220	Non Curve Intersection Point	NCPTINT	N/A								
TDA	221	Horizontal Curve	BEARING	N/A								
			HRZCANGL	N/A								
			HRZDGCRV	N/A								
			HRZPTINT	N/A								
TDA	230	Surface Description	PAVECOND	48	✓	✓	✓	✓				
			PAVINDE	N/A	✓	✓	✓	✓				
			SURFNUM	N/A	✓	✓	✓	✓				
TDA	232	Surface Layers	FRICTCSE	N/A				✓				
			SURFLxTH	N/A				✓				
			SURFLAYx	N/A				✓				
TDA	233	Base	BASETHK	N/A				✓				
			TYPEBASE	N/A				✓				
TDA	251	Intersections	BEGSECNM	N/A	✓	✓	✓	✓				
			ENDSECNM	N/A	✓	✓	✓	✓				
			INTSDIRx	N/A	✓	✓	✓	✓				
			INTSRTPx	N/A	O	O	O	O				
TDA	252	Interchanges	EXITNO	N/A	✓			✓				
			INTERCHG	N/A	✓			✓				

Office	Feature	Feature Name	Characteristic	HPMS Item No. /FE, SP, OR FC	TRAVELWAY PURPOSE CODES (TYPE OF A/E)									
					INTERCHANGE RAMP									
					NON-INTERCHANGE RAMP (E.G., TO REST AREA)									
					FRONTAGE ROAD (W/O FUNCLASS)									
					MANAGED LANE									
					✓	✓	✓	✓						
TDA	253	Railroad Crossings	CHKDIGIT	N/A	✓	✓	✓	✓						
			RRCROSNO	N/A	✓	✓	✓	✓						
TDA	258	Structures	BOXCULNO	4	✓	✓	✓	✓						
			BRIDGENO	4	✓	✓	✓	✓						
			FACCROSS	N/A	✓	✓	✓	✓						
			TUNNELNO	4	✓	✓	✓	✓						
			UNDPASNO	N/A	✓	✓	✓	✓						
TOPS	311	Speed Limits	DTEZAPP	N/A	✓		✓	✓						
			DTEZIMP	N/A	✓		✓	✓						
			MAXSPEED	14	✓		✓	✓						
			MINSPEED	N/A	✓		✓	✓						
TDA	326	Traffic Monitoring Sites	TRFSTANO	N/A	✓		✓	✓						
			TRSTATYP	N/A	✓		✓	✓						
TDA	330	Traffic Flow Break Stations	FLWBRKID	N/A	✓		✓	✓						
			TRFBRKCD	N/A	✓		✓	✓						
TDA	331	Traffic Flow Breaks (Traffic Counts)	AADTDATE	N/A	✓		✓	✓						
			AADTTYPE	N/A	✓		✓	✓						
			AVGDFACT	27	✓		✓	✓						
			AVGKFACT	26	✓		✓	✓						
			AVGTFACT	23, 25	✓		✓	✓						
			SECTADT	21, 22, 24	✓		✓	✓						

Legend		
[BLANK]	Not required	Or
✓	Full Extent, required where characteristic exists	Or
(1)	Inside Urbanized Areas of 200,000 & above	Or
(2)	SIS, NHS, FM Projects, or Toll requirement	Or
(3)	Limited Access	Or
CP	Construction Plans	Or
O	Optional but required for entire district for consistency	Or
R	Rural HPMS Sample	Or
S	HPMS Samples (rural and urban)	Or
U	Urban HPMS Sample	

## ACTIVE OFF SYSTEM

Mainlines and Frontage Roads based on Functional Classification; see legend for caveats.

Office	Feature	Feature Name	Characteristic	HPMS Item No.	Functional Classification						
					01, 11-Interstate PA	02, 12-Freeway/Expressway—PA	04, 14-Other—PA	06, 16-Minor Arterial	07, 17-Major Collector	08, 18-Minor Collector	09, 19-Local
					✓	✓	✓	✓	✓	✓	✓
TDA	111	State Road System/ County Road System	STROADNO	17, 18, 19	✓	✓	✓	✓	✓	✓	✓(2)
			STRDNUM2	20	✓	✓	✓	✓	✓	✓	✓(2)
TDA	112	Federal Systems	FAHWYSYS <sup>(2)</sup>	64	✓	✓	✓	✓	✓	✓	✓
			NHSCID	64	✓(2)	✓(2)	✓(2)	✓(2)	✓(2)	✓(2)	✓(2)
			NHSDATE	64	✓(2)	✓(2)	✓(2)	✓(2)	✓(2)	✓(2)	✓(2)
			OLDFASYS	N/A	✓	✓	✓	✓	✓	✓	✓
			SPECSYS	64	✓	✓	✓	✓	✓	✓	✓(2)
			STGHWNNWK	65	✓	✓	✓	✓	✓	✓	✓(2)
			TRAVLWAY	64, 65	✓	✓	✓	✓	✓	✓	✓(2)
TDA	113	AASHTO Systems U.S. Route/Interstate	USROUTE	17, 18, 19							
			USROUTE2	20							
TDA	114	Local Name	LOCALNAM	N/A	✓	✓	✓	✓	✓	✓	✓
TDA	115	Special Designations	SCENEHWY	N/A	✓	✓	✓	✓	✓	✓	✓
			SCENEDATE	N/A	✓	✓	✓	✓	✓	✓	✓
			SCENEEXT	N/A	✓	✓	✓	✓	✓	✓	✓
TDA	117	FIPS Designated Boundaries	FIPSPLCD	N/A	✓	✓	✓	✓	✓	✓	✓
			FIPSUACD	2	✓	✓	✓	✓	✓	✓	✓
TDA	118	Highway Performance Monitoring Systems (HPMS Samples)	ATGROTHR	33	✓S	✓S	✓S	✓S	✓S	✓U	
			ATGRSIG	31	✓S	✓S	✓S	✓S	✓S	✓U	
			ATGRSTOP	32	✓S	✓S	✓S	✓S	✓S	✓U	
			CURCLASx	43	✓S	✓S	✓S	✓R			
			GRACLASx	45	✓S	✓S	✓S	✓R			
			HPMSIDNO	KEY	✓S	✓S	✓S	✓S	✓S	✓U	
			LOADTDEV	KEY	✓S	✓S	✓S	✓S	✓S	✓U	
			PEAKLANE	10	✓S	✓S	✓S	✓S	✓S	✓U	
			SIGPREV	29	✓S	✓U	✓U	✓U	✓U	✓U	
			SIT1500	46	✓S	✓R	✓R	✓R	✓R		
			TERRAIN	44	✓S	✓R	✓R	✓R	✓R		
			TURNLANL	13	✓S	✓U	✓U	✓U	✓U	✓U	
			TURNLANR	12	✓S	✓U	✓U	✓U	✓U	✓U	
			TYPEOP	40	✓S	✓U	✓U	✓U	✓U	✓U	
			WIDOBST_ (A-F, X)	41	✓S	✓S	✓S	✓S	✓S	✓U	
			WIDPOTNL	42	✓S	✓S	✓S	✓S	✓S	✓U	

Office	Feature	Feature Name	Characteristic	HPMS Item No.	Functional Classification							
					01, 11-Interstate PA   02, 12-Freeway/Expressway—PA     04, 14-Other—PA       06, 16-Minor Arterial         07, 17-Major Collector           08, 18-Minor Collector             09, 19-Local							
					✓	✓	✓	✓	✓	✓	✓	✓
TDA	119	HPMS Universe (Entire Roadway)	BASETHIK	60	✓	✓	✓	✓	✓	✓	U	
			BASETYPE	59	✓	✓	✓	✓	✓	✓	U	
			FLEXTHIK	58	✓	✓	✓	✓	✓	✓	U	
			HOVNUMLN	9	✓	✓	✓	✓	✓	✓	U	
			HOVTYPE	8	✓	✓	✓	✓	✓	✓	U	
			IRIDATE	47	✓	✓	✓	✓	✓	✓	U	
			OVRYTHIK	56	✓	✓	✓	✓	✓	✓	U	
			RAMPFC	1	CODE ONLY ON ACTIVE EXCLUSIVE							
			RIGDTHIK	57	✓	✓	✓	✓	✓	✓	U	
			SURFACTP	49	✓	✓	✓	✓	✓	✓	U	
			TOLLCHGS	15	✓	✓	✓	✓	✓	✓	✓(2)	
			TOLLTYPE	16	✓	✓	✓	✓	✓	✓	✓(2)	
			YRCONST	55	✓	✓	✓	✓	✓	✓	U	
			YRIMPT	54	✓	✓	✓	✓	✓	✓	U	
TDA	120	Type of Road	RTESGNCD	18	✓	✓	✓	✓	✓	✓	✓	
			TYPEROAD	3	✓	✓	✓	✓	✓	✓	✓	
TDA	121	Functional Classification	FUNCLASS	1	✓	✓	✓	✓	✓	✓	✓	
			PROFUNCL	N/A	✓	✓	✓	✓	✓	✓	✓	
TDA	122	Facility Classification	RDACCESS	5	✓	✓	✓	✓	✓	✓	✓	
			TOLLROAD	15	✓	✓	✓	✓	✓	✓	✓	
			TOLLNAME	N/A	✓	✓	✓	✓	✓	✓	✓(2)	
			OWNAUTH	N/A	✓	✓	✓	✓	✓	✓	✓(2)	
TDA	124	Urban Classification	HWYLOCAL	N/A	✓	✓	✓	✓	✓	✓	✓	
			MPOAREA	N/A	✓	✓	✓	✓	✓	✓	✓	
			PLACECD	N/A	✓	✓	✓	✓	✓	✓	✓	
			URBAREA	2	✓	✓	✓	✓	✓	✓	✓	
			URBSIZE	N/A	✓	✓	✓	✓	✓	✓	✓	
TDA	125	Adjacent Land Classification	ROUGHIND	47	✓	✓	✓	✓	✓	✓	✓(2)	
TDA	126	Context Classification	CCTXTCLS	N/A								
			CCTXTDTE	N/A								
			FCTXTCLS	N/A								
			FCTXTDTE	N/A								
TDA	138 & 139	Roadway Realignment and Associated Roadway	BEGSECPT	N/A	✓	✓	✓	✓	✓	✓	✓(2)	
			ENDSECPT	N/A	✓	✓	✓	✓	✓	✓	✓(2)	
			RDWYD	N/A	✓	✓	✓	✓	✓	✓	✓(2)	
TDA	140	Section Status Exception	OSDATE	N/A	✓	✓	✓	✓	✓	✓	✓	
			STATEXPT	6	✓	✓	✓	✓	✓	✓	✓	

[illegible]

Office	Feature	Feature Name	Characteristic	HPMS Item No.	Functional Classification							
					01, 11-Interstate PA	02, 12-Freeway/Expressway—PA	04, 14-Other—PA	06, 16-Minor Arterial	07, 17-Major Collector	08, 18-Minor Collector	09, 19-Local	
					✓	✓	✓	✓	✓	✓	✓	
TDA	215	Medians	MDBARTYP	35	✓	✓	✓	✓	✓	✓	✓(2)	
			MEDWIDTH	36	✓	✓	✓	✓	✓	✓	✓(2)	
			RDMECHAN	35	✓	✓	✓	✓	✓	✓	✓(2)	
TDA	216	Bike Lanes and Pedestrian Sidewalks	BIKELNCD	N/A	✓	✓	✓	✓	✓	✓	✓(2)	
			BIKSLTCD	N/A	✓	✓	✓	✓	✓	✓	✓(2)	
			SDWLKBCD	N/A	✓	✓	✓	✓	✓	✓	✓(2)	
			SHRDPTH	N/A	✓	✓	✓	✓	✓	✓	✓(2)	
			SIDWLKWD	N/A	✓	✓	✓	✓	✓	✓	✓(2)	
TDA	219	Inside Shoulders	ISLDTYPE	37	✓	✓	✓	✓	✓	✓	✓(2)	
			ISLDTYPEx	N/A	✓	✓	✓	✓	✓	✓	✓(2)	
			ISLDWDTH	N/A	✓	✓	✓	✓	✓	✓	✓(2)	
			ISLDWTHx	N/A	✓	✓	✓	✓	✓	✓	✓(2)	
TDA	220	Non Curve Intersection Point	NCPTINT	N/A								
TDA	221	Horizontal Curve	BEARING	N/A								
			HRZCANGL	N/A								
			HRZDGRV	N/A								
			HRZPTINT	N/A								
TDA	230	Surface Description	PAVECOND	48	✓	✓	✓	✓	✓	✓	✓(2)	
			PAVINDEK	N/A	✓	✓	✓	✓	✓	✓	✓(2)	
			SURFNUM	N/A	✓	✓	✓	✓	✓	✓	✓(2)	
TDA	232	Surface Layers	FRICTCSE	N/A								
			SURFLxTH	N/A								
			SURFLAYx	N/A								
TDA	233	Base	BASETHK	N/A								
			TYPEBASE	N/A								
TDA	251	Intersections	BEGSECNM	N/A	✓	✓	✓	✓	✓	✓	✓(2)	
			ENDSECNM	N/A	✓	✓	✓	✓	✓	✓	✓(2)	
			INTSDIRx	N/A	✓	✓	✓	✓	✓	✓	✓(2)	
			INTSRTPx	N/A	0	0	0	0	0	0	0	
TDA	252	Interchanges	EXITNO	N/A	✓(3)	✓(3)	✓(3)	✓(3)	✓(3)	✓(3)	✓(3)	
			INTERCHG	N/A	✓(3)	✓(3)	✓(3)	✓(3)	✓(3)	✓(3)	✓(3)	

Office	Feature	Feature Name	Characteristic	HPMS Item No.	Functional Classification							
					01, 11-Interstate PA   02, 12-Freeway/Expressway—PA     04, 14-Other—PA       06, 16-Minor Arterial         07, 17-Major Collector           08, 18-Minor Collector             09, 19-Local							
					✓	✓	✓	✓	✓	✓	✓	
TDA	253	Railroad Crossings	CHKDIGIT	N/A	✓	✓	✓	✓	✓	✓	✓	
			RRCROSNO	N/A	✓	✓	✓	✓	✓	✓	✓	
TDA	258	Structures	BOXCULNO	4	✓	✓	✓	✓	✓	✓	✓	
			BRIDGENO	4	✓	✓	✓	✓	✓	✓	✓	
			FACCROSS	N/A	✓	✓	✓	✓	✓	✓	✓	
			TUNNELNO	4	✓	✓	✓	✓	✓	✓	✓	
			UNDPASNO	N/A	✓	✓	✓	✓	✓	✓	✓	
TOPS	311	Speed Limits	DTESZAPP	N/A								
			DTESZIMP	N/A								
			MAXSPEED	14	✓	✓	✓	✓	✓	✓	✓(2)	
			MINSPEED	N/A								
TDA	326	Traffic Monitoring Sites	TRFSTANO	N/A	✓	✓	✓	✓	✓	✓	✓(2)	
			TRSTATYP	N/A	✓	✓	✓	✓	✓	✓	✓(2)	
TDA	330	Traffic Flow Break Stations	FLWBRKID	N/A	✓	✓	✓	✓	✓	✓	✓(2)	
			TRFBRKCD	N/A	✓	✓	✓	✓	✓	✓	✓(2)	
TDA	331	Traffic Flow Breaks (Traffic Counts)	AADTDATE	N/A	✓	✓	✓	✓	✓	✓	✓(2)	
			AADTTYPE	N/A	✓	✓	✓	✓	✓	✓	✓(2)	
			AVGDFACT	27	✓	✓	✓	✓	✓	✓	✓(2)	
			AVGKFACT	26	✓	✓	✓	✓	✓	✓	✓(2)	
			AVGTFACT	23, 25	✓	✓	✓	✓	✓	✓	✓(2)	
			SECTADT	21, 22, 24	✓	✓	✓	✓	✓	✓	✓(2)	

Legend		
[BLANK]	Not required	Or
✓	Full Extent, required where characteristic exists	Or
(1)	Inside Urbanized Areas of 200,000 & above	Or
(2)	SIS, NHS, FM Projects, or Toll requirement	Or
(3)	Limited Access	Or
CP	Construction Plans	Or
O	Optional but required for entire district for consistency	Or
R	Rural HPMS Sample	Or
S	HPMS Samples (rural and urban)	Or
U	Urban HPMS Sample	



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Office	Feature	Feature Name	Characteristic	HPMS Item No.	Future Status				
					On System				
						Off System			
							Active/Exclusive—Ramp		
								Active/Exclusive—Managed Lane	
▼	▼	▼	▼						
TDA	119	HPMS Universe (Entire Roadway)	BASETHIK	60					
			BASETYPE	59					
			FLEXTHIK	58					
			HOVNUMLN	9					
			HOVTYPE	8					
			IRIDATE	47					
			OVRYTHIK	56					
			RAMPFC	1					
			RIGDTHIK	57					
			SURFACTP	49					
			TOLLCHGS	15					
			TOLLTYPE	16					
			YRCONST	55					
			YRIMPT	54					
TDA	120	Type of Road	RTESGNCD	18					
			TYPEROAD	3					
TDA	121	Functional Classification	FUNCLASS	1	✓	✓		✓	
			PROFUNCL	N/A	✓	✓		✓	
TDA	122	Facility Classification	RDACCESS	5	✓	✓	✓	✓	
			TOLLROAD	15	✓	✓		✓	
			TOLLNAME	N/A	✓	✓		✓	
			OWNAUTH	N/A	✓	✓		✓	
TDA	124	Urban Classification	HWYLOCAL	N/A	✓	✓	✓	✓	
			MPOAREA	N/A	✓	✓	✓	✓	
			PLACECD	N/A	✓	✓	✓	✓	
			URBAREA	2	✓	✓	✓	✓	
			URBSIZE	N/A	✓	✓	✓	✓	
TDA	125	Adjacent Land Classification	ROUGHIND	47					
TDA	126	Context Classification	CCTXTCLS	N/A					
			CCTXTDTE	N/A					
			FCTXTCLS	N/A					
			FCTXTDTE	N/A					
TDA	138 & 139	Roadway Realignment and Associated Roadway	BEGSECPT	N/A					
			ENDSECPT	N/A					
			RDWYD	N/A					

Office	Feature	Feature Name	Characteristic	HPMS Item No.	Future Status									
					On System									
					Off System									
					Active/Exclusive—Ramp									
					Active/Exclusive—Managed Lane									
					✓	✓	✓	✓						
TDA	140	Section Status Exception	OSDATE	N/A										
			STATEXPT	6	✓	✓	✓	✓						
TDA	141 & 143	Stationing Exception and Associated Roadway	BEGSECPT	N/A										
			ENDSECPT	N/A										
			RDWYID	N/A										
TDA	142	Managed Lanes and Associated Roadway	CMLBMP	N/A										
			CMPEMP	N/A										
			CMLRDWY	N/A										
			LMLBMP	N/A										
			LMLEMP	N/A										
			LMLRDWY	N/A										
			MAINBMP	N/A										
			MAINEMP	N/A										
			MAINRDWY	N/A										
			RMLBMP	N/A										
			RMLEMP	N/A										
			RMLRDWY	N/A										
TDA	147	Strategic Intermodal System (SIS)	SISFCTPx	N/A	✓	✓	✓	✓						
TDA	212	Thru Lanes	NOLANES	7										
			SURWIDTH	34										
TDA	213	Auxiliary Lanes	AUXLNTYP	N/A										
			AUXLNUM	N/A										
			AUXLNWTH	N/A										
TDA	214	Outside Shoulders	MLTRFSEP	N/A										
			SHLDTYPE	37										
			SHLDTYPx	37										
			SLDWIDTH	38										
			SHLDWTHx	38										
TDA	215	Medians	MDBARTYP	35										
			MEDWIDTH	36										
			RDMEDIAN	35										

Office	Feature	Feature Name	Characteristic	HPMS Item No.	Future Status								
					On System								
						Off System							
							Active/Exclusive—Ramp						
								Active/Exclusive—Managed Lane					
▼	▼	▼	▼										
TDA	216	Bike Lanes and Pedestrian Sidewalks	BIKELNCD	N/A									
			BIKSLTCD	N/A									
			SDWLKBCD	N/A									
			SHRDPH	N/A									
			SIDWLKWD	N/A									
TDA	219	Inside Shoulders	ISLDTYPE	37									
			ISLDTYPx	N/A									
			ISLDWDTH	N/A									
			ISLDWTHx	N/A									
TDA	220	Non Curve Intersection Point	NCPTINT	N/A									
TDA	221	Horizontal Curve	BEARING	N/A									
			HRZCANGL	N/A									
			HRZDGCRV	N/A									
			HRZPTINT	N/A									
TDA	230	Surface Description	PAVECOND	48									
			PAVINDE	N/A									
			SURFNUM	N/A									
TDA	232	Surface Layers	FRICTCSE	N/A									
			SURFLxTH	N/A									
			SURFLAYx	N/A									
TDA	233	Base	BASETHK	N/A									
			TYPEBASE	N/A									
TDA	251	Intersections	BEGSECNM	N/A	✓	✓	✓	✓					
			ENDSECNM	N/A	✓	✓	✓	✓					
			INTSDIRx	N/A									
			INTSRTPx	N/A									
TDA	252	Interchanges	EXITNO	N/A									
			INTERCHG	N/A									
TDA	253	Railroad Crossings	CHKDIGIT	N/A									
			RRCROSNO	N/A									

Office	Feature	Feature Name	Characteristic	HPMS Item No.	Future Status				
					On System				
						Off System			
							Active/Exclusive—Ramp		
								Active/Exclusive—Managed Lane	
▼	▼	▼	▼						
TDA	258	Structures	BOXCULNO	4					
			BRIDGENO	4					
			FACCROSS	N/A					
			TUNNELNO	4					
			UNDPASNO	N/A					
TOPS	311	Speed Limits	DTESZAPP	N/A					
			DTESZIMP	N/A					
			MAXSPEED	14					
			MINSPEED	N/A					
TDA	326	Traffic Monitoring Sites	TRFSTANO	N/A					
			TRSTATYP	N/A					
TDA	330	Traffic Flow Break Stations	FLWBRKID	N/A					
			TRFBRKCD	N/A					
TDA	331	Traffic Flow Breaks (Traffic Counts)	AADTDATE	N/A					
			AADTTYPE	N/A					
			AVGDFACT	27					
			AVGKFACT	26					
			AVGTFACT	23, 25					
			SECTADT	21, 22, 24					

Legend		
[BLANK]	Not required	Or
✓	Full Extent, required where characteristic exists	Or
(1)	Inside Urbanized Areas of 200,000 & above	Or
(2)	SIS, NHS, FM Projects, or Toll requirement	Or
(3)	Limited Access	Or
CP	Construction Plans	Or
O	Optional but required for entire district for consistency	Or
R	Rural HPMS Sample	Or
S	HPMS Samples (rural and urban)	Or
U	Urban HPMS Sample	



## **B. RCI OBSOLETE CODES**

## RCI OBSOLETE CODES

Roadway Feature	Feature Description	Roadway Characteristic	Characteristic Description	Code	Code Description
115	SPECIAL DESIGNATION S	SCENEHWY	SCENIC HWY DESIGNATION	A1AOIT	A1A OCEAN ISLANDS TRAIL (OBS)
				A1AOS	A1A OCEAN SHORE (OBS)
				A1ARS	A1A RIVER-SEA (OBS)
				TTH	TAMIAMI TRAIL HWY (OBS)
118	HPMS	ATGRTYPE	AT GRADE TYP—FIRST/LAST (OBS)	F	FIRST—OLD WAY (OBS)
				L	LAST—NEW WAY (OBS)
		HORALADQ	HORIZONTAL ALIGNMENT ADEQUACY	00000000	CURVES BY CLASS CODED (OBS)
				00000001	ALL CURVES STANDARD (OBS)
				00000002	SOME CRVS<STNDRD, SAFE (OBS)
				00000003	SOME CRVS DSNSPD<SIGNED (OBS)
				00000004	MANY CRVS UNSAFE AS SIGND(OBS)
		LOADTDEV	HPMS SAMPLE TYPE	00000001	DONUT SAMPLE (OBS)
		VRTALADQ	VERTICAL ALIGNMENT ADEQUACY	00000000	GRADES BY CLASS CODED (OBS)
				00000001	GRADES & VERT.CRVS STND (OBS)
				00000002	SOME<STND BUT SAFE (OBS)
				00000003	SOME CURVS LESS THAN 1500(OBS)
				00000004	MANY CURVS LESS THAN 1500(OBS)
119	HPMS UNIVERSE	CALLSERV	PUBLIC PATROL/TOWING S (OBS)	0	NO (OBS)
				1	YES (OBS)
		CELLPHON	FREE CELL PHONE REP (OBS)	0	NO (OBS)
				1	YES (OBS)
		DETECALG	INCIDENT DETECTION TECH (OBS)	0	NO (OBS)
				1	YES (OBS)
		ELECSURV	ELECTRONIC SURVEIL-FLOW (OBS)	0	NO (OBS)
				1	YES (OBS)
		HADRADIO	HIGHWAY ADVISORY RADIO (OBS)	0	NO (OBS)
				1	YES (OBS)
		METERAMP	METERED ENTRANCE RAMP (OBS)	0	NO (OBS)
				1	YES (OBS)
		SIGNINFO	IN-VEHICLE SIGNING EQUIP (OBS)	0	NO (OBS)
				1	YES (OBS)
122	FACILITY CLASSIFICATION	OWNAUTH	OWNING AUTHORITY	OOCEA	ORLANDO ORANGE CO EXWAY (OBS)
213	AUXILIARY LANES	AUXLNTYP	AUXILIARY LANE TYPE	00000001	CONTINUOUS LEFT TURN (OBS)
				00000008	LANE WITH BIKE SLOT (OBSOLETE)



Roadway Feature	Feature Description	Roadway Characteristic	Characteristic Description	Code	Code Description
215	MEDIAN	RDMEDIAN	HIGHWAY MEDIAN TYPE	00000003	CURB > 6 INCH (OBS)
				00000004	GUARDRAIL (OBS)
				00000005	FENCE (OBS)
				00000006	BARRIER WALL (OBS)
				00000007	1 WAY PR.(C.BLK.) (OBS)
				00000009	GRAVEL/MARL (OBS)
				00000010	PAVED/HATCHING AND GORES (OBS)
				00000011	DEPRESSED MEDIAN (OBS)
				00000012	PAVED W/ GUARDRAIL (OBS)
				00000013	PAVED WITH BARRIER (OBS)
				00000014	C.<6 IN. & GU.RAIL (OBS)
				00000015	C.<6 IN. & FENCE (OBS)
				00000016	C.<6 IN. & BARRIER (OBS)
				00000018	C.>6 IN. & GU.RAIL (OBS)
				00000019	CURB > 6" & FENCE (OBS)
				00000021	C.>6 IN. & BARRIER (OBS)
				00000022	C.>6 IN. & LAWN (OBS)
				00000023	LAWN & GU.RAIL (OBS)
				00000024	GRASSED WITH FENCE (OBS)
				00000025	LAWN & BARRIER (OBS)
				00000026	LW,BAR.& C.< 6 IN. (OBS)
				00000027	LW,BAR.& C.> 6 IN. (OBS)
				00000028	CANAL, DITCH, ETC. (OBS)
				00000029	COM 02,03,& 28 (OBS)
				00000030	COM 02,03,05,28 (OBS)
				00000031	LAWN W/DBL GUARDRL (OBS)
				00000032	UNPAVED W/LANDSCAPING (OBS)
				00000033	WOODED (OBS)
				00000034	CURB W/LANDSCAPING (OBS)
216	BIKE LANES/PED SIDEWALK	BIKELNCD	BICYCLE LANE	00000000	UNDESIGNATED (OBSOLETE)
		BIKSLTCD	BICYCLE KEYHOLE LANE	00000000	UNDESIGNATED (OBSOLETE)
219	INSIDE SHOULDERS	ISLDTYPE	INSIDE SHOULDER TYPE	00000003	LAWN (OBSOLETE)
				00000004	GRAVEL/MARL (OBSOLETE)
				00000005	VALLEY GUTR (OBSOLETE)

Roadway Feature	Feature Description	Roadway Characteristic	Characteristic Description	Code	Code Description
230	SURFACE DESCRIPTION	SURFNUM	PAVEMENT SURFACE TYPE	00000001	GRADED AND DRAINED (OBS)
				00000002	SAND,CLAY,OR ANY SOIL SU (OBS)
				00000003	UNSURFACED ROCK,MARL,OR (OBS)
				00000004	SURFACE TREATED NON-RIGI (OBS)
				00000006	RETREAD(LESS THAN 2 INCH (OBS)
				00000007	SAND BIT.ROAD MIX (OBS)
				00000009	COMBINATION(MOST GRP 2) (OBS)
				00000010	COMBINATION(MOST SBRM) (OBS)
				00000011	COMBINATION(MOST GRP 4) (OBS)
				00000012	COMBINATION(MOST CONCRT) (OBS)
				00000013	COMBINATION(MOST BRICK) (OBS)
				00000014	COMBINATION(MOST BLOCK) (OBS)
				00000015	COMBINATION(MOST BITMAC) (OBS)
				00000016	COMBINATION(MOST ASPH) (OBS)
				00000017	DUAL(MOSTLY GRP 2) (OBS)
				00000018	DUAL(MOSTLY SBRM) (OBS)
				00000019	DUAL(MOSTLY GRP 4) (OBS)
				00000020	DUAL(MOSTLY CONCRT) (OBS)
				00000021	DUAL(MOSTLY BRICK) (OBS)
				00000022	DUAL(MOSTLY BLOCK) (OBS)
				00000023	DUAL(MOSTLY BITMAC) (OBS)
				00000024	DUAL(MOSTLY ASPHALT) (OBS)
				00000026	BLOCK OF ANY TYPE (OBS)
				00000027	BITUMINOUS MAC. (OBS)
				00000029	RETREAD(MORE THAN 2 IN (OBS)
311	SPEED ZONE	SIGNALNC	NON-COUNTED SIGNAL	00000004	DO NOT USE (OBSOLETE)
				00000005	DO NOT USE (OBSOLETE)
351	MOTORIST AID SYSTEM (OBS)	MOTORAID	TYPE OF MOTORIST AID (OBS)	00000001	CALL BOX-PUSH BUTTON (OBS)
				00000002	CALL BOX-VOICE (OBS)

## **C. VEHICLE SAFETY INSPECTION SHEET EXAMPLES**

## Vehicle Safety Inspection Sheet

Date: \_\_\_\_\_ Data Collectors: \_\_\_\_\_  
 Inspected by: \_\_\_\_\_ Vehicle Number: \_\_\_\_\_

ITEMS	OPERATIONAL	COMMENTS
Lights	<input type="checkbox"/>	
Windshield Wipers	<input type="checkbox"/>	
Mirrors	<input type="checkbox"/>	
Seat Belts	<input type="checkbox"/>	
Horn	<input type="checkbox"/>	
Brakers Lights	<input type="checkbox"/>	
Signal Indicators	<input type="checkbox"/>	
Light Bars	<input type="checkbox"/>	
Strobes	<input type="checkbox"/>	
Vehicle Log Book	<input type="checkbox"/>	
Digital Measuring Instrument (DMI)	<input type="checkbox"/>	
Fire Extinguisher	<input type="checkbox"/>	
Car Jack	<input type="checkbox"/>	
Spare Tire	<input type="checkbox"/>	
First Aid Kit	<input type="checkbox"/>	
Water Cooler	<input type="checkbox"/>	
Safety Vests	<input type="checkbox"/>	
Measuring Wheel/Measuring Instrument	<input type="checkbox"/>	
Cell phone, extra batteries, or chargers	<input type="checkbox"/>	
Temporary Marking Paint	<input type="checkbox"/>	
Street Network Maps	<input type="checkbox"/>	
SLDs	<input type="checkbox"/>	
Inventory Field Sheets	<input type="checkbox"/>	
Other Comments		
Tire Pressure Cold (psi)	Right Rear _____ Left Rear _____ Right Front _____ Left Front _____	
Tire Pressure Warm (psi)	Right Rear _____ Left Rear _____ Right Front _____ Left Front _____	

Vehicle Safety Inspection Sheet					
Data Collector Names:				License Plate #	
Vehicle #			Vehicle Make/Model/Year		
Date			Inspect By		
REQUIRED DOCUMENTS					
Current Registration <input type="checkbox"/>		Proof Insurance <input type="checkbox"/>		Driver's License <input type="checkbox"/>	
VEHICLE CONDITION				OTHER	
Tires				Fire Extinguisher <input type="checkbox"/>	
Left Front Tire	Adequate Tread <input type="checkbox"/>	Pressure	lbs	Handbooks	<input type="checkbox"/>
Right Front Tire	Adequate Tread <input type="checkbox"/>	Pressure	lbs	Maps	<input type="checkbox"/>
Left Back Tire	Adequate Tread <input type="checkbox"/>	Pressure	lbs	Inventory Folder	<input type="checkbox"/>
Right Back Tire	Adequate Tread <input type="checkbox"/>	Pressure	lbs	SLDs	<input type="checkbox"/>
Spare Tire	Adequate Tread <input type="checkbox"/>	Pressure	lbs	First Aid Kit	<input type="checkbox"/>
Lights		Fluids		Water <input type="checkbox"/>	
Headlights	Highbeams <input type="checkbox"/>	Oil	<input type="checkbox"/>	Cell Phone <input type="checkbox"/>	
	Left <input type="checkbox"/>	Transmission	<input type="checkbox"/>	Safety Vests <input type="checkbox"/>	
	Right <input type="checkbox"/>	Brake	<input type="checkbox"/>	Camera <input type="checkbox"/>	
Turn Signals	Left Front <input type="checkbox"/>	Steering	<input type="checkbox"/>	Paint <input type="checkbox"/>	
	Right Front <input type="checkbox"/>	Wiper Fluid	<input type="checkbox"/>	Inventory <input type="checkbox"/>	
	Left Back <input type="checkbox"/>	Coolants	<input type="checkbox"/>	Batteries <input type="checkbox"/>	
	Right Back <input type="checkbox"/>	Gasoline	<input type="checkbox"/>	Measuring Wheel <input type="checkbox"/>	
Tail Lights	Left <input type="checkbox"/>	Comments			
	Right <input type="checkbox"/>				
Brake Lights	Left <input type="checkbox"/>				
	Right <input type="checkbox"/>				
Back up Lights	Left <input type="checkbox"/>				
	Right <input type="checkbox"/>				
Safety Lights	Left <input type="checkbox"/>				
	Right <input type="checkbox"/>				
Remaining Vehicle Items					
Hazard <input type="checkbox"/>	Horn <input type="checkbox"/>				
Seat Belts <input type="checkbox"/>	Vehicle Log Book <input type="checkbox"/>				
Outside Mirrors <input type="checkbox"/>	Windshield Wipers <input type="checkbox"/>				
DMI <input type="checkbox"/>	Car Jack <input type="checkbox"/>				



## D. RCI—MIRE CROSSWALK

This appendix provides a crosswalk between RCI features and characteristics and Model Inventory of Roadway Elements (MIRE). MIRE is a recommended listing of roadway characteristics and traffic inventory elements critical to safety management. MIRE is a guideline to help transportation agencies improve their roadway and traffic data inventories.

Section	MIRE Element Name	FDE?	RCI Feature	RCI Characteristic Description	Notes	Data Collection
Roadway Segment	1. County Name	No		RDWYID-County, Section, sub-section	First Two digits of RDWYID is County. Collected in Office; can be located on VUD screen.	Collected by FDOT
	2. County Code	No		RDWYID-County, Section, sub-section	First Two digits of RDWYID is County. Collected in Office; can be located on VUD screen.	Collected by FDOT
	3. Highway District	No		RDWYID-County, Section, sub-section	First Two digits is County, determine FDOT District from County Code. Collected in Office; can be located on VUD screen. Additionally, the third and forth digits, when "47" indicate the roadway is in district 08—Turnpike.	Collected by FDOT
	4. Type of Governmental Ownership	Yes			Can be derived from State roads STROADNO and Federal Roads FAHWYSYS. Collected in Office; can be located on VUD screen.	Collected by FDOT
	5. Specific Governmental Ownership	No			Can be derived from State roads STROADNO. Collected in Office; can be located on VUD screen.	Collected by FDOT
	6. City/Local Jurisdiction Name	No	124	PLACECD-Census Place (City) Code	Cities have a 4 digit ID and corresponding name. Collected in Office; can be located on VUD screen.	Collected by FDOT
	7. City/Local Jurisdiction Urban Code	No	124	URBAREA-Urban Area Number	Established by the Census Bureau based on the Census data and coincide with the PLACECD.	Collected by FDOT
	8. Route Number	Yes	111, 113	STROADNO-State Road Number; USROUTE-U.S. Route Number	Collected in field by signs, verified by maps	Collected by FDOT
	9. Route/Street Name	Yes	111, 113, 114	STROADNO-State Road Number; USROUTE-U.S. Route Number; LOCALNAM-Local Name of Facility	Collected in field by signs, verified by maps	Collected by FDOT
	10. Begin Point Segment Descriptor	Yes	251	BEGSECNM-Begin Roadway Section MP Description		Collected by FDOT





Section	MIRE Element Name	FDE?	RCI Feature	RCI Characteristic Description	Notes	Data Collection
Roadway Segment	11. End Point Segment Descriptor	Yes	251	ENDSECNM—End Roadway Section MP Description		Collected by FDOT
	12. Segment Identifier	Yes		RDWYID-County, Section, sub-section	Collected in Office; can be located on VUD screen.	Collected by FDOT
	13. Segment Length	Yes			Can be derived using Begin Section Milepoint and End Section Milepoint. This is located on the VUD screen, determined by field data collection.	Collected by FDOT
	14. Route Signing	No	111, 113	STROADNO-State Road Number; USROUTE-U.S. Route Number	Collected in field by signs, verified by maps or designation by AASHTO paperwork	Collected by FDOT
	15. Route Signing Qualifier	No	120	RTESGNCD—Route Signing	Collected in field by signs, verified by maps or designation by AASHTO paperwork	Collected by FDOT
	16. Coinciding Route Indicator	No	111, 113, 141	STRDNUM2 or USROUTE2 and RDWYID	Can be calculated from other available information	Collected by FDOT
	17. Coinciding Route—Minor Route Information	No	111, 113, 141	STRDNUM2 or USROUTE2 and RDWYID	Can be calculated from other available information	Collected by FDOT
	18. Direction of Inventory	Yes			Located on VUD screen and determined using GIS/LRS.	Collected by FDOT
	19. Functional Class	Yes	121	FUNCLASS—Functional Classification	This is done generally when the census is done and can be updated as necessary with the Local Government input.	Collected by FDOT
	20. Rural/Urban Designation	Yes	124	URBSIZE—Urban Size	Established from Census data	Collected by FDOT
	21. Federal Aid	Yes	112	FAHWYSYS—Federal Highway System Code	Collected in Office determined by type of road (e.g., Interstate) and ownership, funclass; additionally, the NHS is as per designation by Federal legislation or by approval by Federal Highway.	Collected by FDOT

Section	MIRE Element Name	FDE?	RCI Feature	RCI Characteristic Description	Notes	Data Collection
Roadway Segment	22. Route Type	Yes	112	SPECSYS—Special Systems	Collected in Office based on NHS data	Collected by FDOT
	23. Access Control	Yes	122	RDACCESS—Access Control Type		Collected by FDOT
	24. Surface Type	Yes	119, 230	SURFACTP—Surface Type; SURFNUM—Pavement Surface Type		Collected by FDOT
	25. Total Paved Surface Width	No	212, 214, 219	SURWIDTH—Pavement Surface Width; SLDWIDTH—Highway Shoulder Width; (ISLDWDTH—Inside Shoulder Width or RDMEDIAN—Paved Median Type)	Collected in Field	Collected by FDOT
	26. Surface Friction	No	232	FRICTCSE—Friction Course	This is usually taken from Construction Plans	Collected by FDOT
	27. Surface Friction Date	No	119	YRCONST—Year of Last Construction; YRIMPT—Year of Last Improvement		Collected by FDOT
	28. International Roughness Index (IRI)	No	125	ROUGHIND—Pavement Roughness Index		Collected by FDOT
	28. International Roughness Index (IRI) Date	No	119	IRIDATE—International Roughness Index Collection Date		Collected by FDOT
	30. Pavement Condition (Present Serviceability Rating [PSR])	No	230	PAVECOND—Pavement Condition		Collected by FDOT
	31. Pavement Condition (PSR) Date	No			Can use the date of inventory	Collected by FDOT
	32. Number of Through Lanes	Yes	212	NOLANES—Number of Roadway Lanes		Collected by FDOT

Section	MIRE Element Name	FDE?	RCI Feature	RCI Characteristic Description	Notes	Data Collection
Roadway Segment	33. Outside Through Lane Width	No			Possibly can be derived from SURWIDTH (Pavement Surface Width) and NOLANES (Number of Roadway Lanes). However, if the lane width varies, then this MIRE Element cannot be calculated.	Not collected by FDOT, and could not be derived
	34. Inside Through Lane Width	No			Possibly can be derived from SURWIDTH (Pavement Surface Width) and NOLANES (Number of Roadway Lanes). However, if the lane width varies, then this MIRE Element cannot be calculated.	Not collected by FDOT, and could not be derived
	35. Cross Slope	No				Not collected by FDOT, and could not be derived
	36. Auxiliary Lane Presence/Type	No	213	AUXLNTP—Auxiliary Lane Type		Collected by FDOT
	37. Auxiliary Lane Length	No	213	AUXLNTP—Auxiliary Lane Type	Captured when the Aux Lane—beginning and ending milepoint is coded.	Collected by FDOT
	38. High-occupancy Vehicle (HOV) Lane Presence/Type	No	119	HOVTYPE—High Occupancy Vehicle Type		Collected by FDOT
	39. HOV Lanes	No	119	HOVNUMLN—High Occupancy Vehicle Lanes		Collected by FDOT
	40. Reversible Lanes	No	120, 212	TYPEROAD—Type of Road; NOLANES—Number of Roadway Lanes		Collected by FDOT
	41. Presence/Type of Bicycle Facility	No	216	BIKELNCD—Bicycle Lane; BIKSLTCD—Bicycle Keyhole Lanes; SHLDTYPE—Paved shoulder > 4 ft and < 10ft		Collected by FDOT
	42. Width of Bicycle Facility	No	214	SLDWIDTH—Paved Shoulder Width		Collected by FDOT

Section	MIRE Element Name	FDE?	RCI Feature	RCI Characteristic Description	Notes	Data Collection
Roadway Segment	43. Number of Peak Period Through Lanes	No	118	PEAKLANE-Number of Lanes in Peak Direction in Peak Hour	Collected on all HPMS samples	Collected by FDOT
	44. Right Shoulder Type	No	214	SHLDTYPE and SHLDTYPx—Highway Shoulder Type		Collected by FDOT
	45. Right Shoulder Total Width	No	214	SLDWIDTH and SHLDWTHx—Highway Shoulder Width		Collected by FDOT
	46. Right Paved Shoulder Width	No	214, 216	SHLDTYPE and SHLDTYPx—Highway Shoulder Type; SLDWIDTH and SHLDWTHx—Highway Shoulder Width; BIKELNCD—Bicycle Lane	Can be derived from SHLDTYPE and SLDWIDTH as well as bikelane and parking data	Collected by FDOT
	47. Right Shoulder Rumble Strip Presence/Type	No	214	SHLDTYPE and SHLDTYPx—Highway Shoulder Type	Code 2 could possibly be used, but the warning device in code 2 includes much more than rumble strip; need to add a separate code for rumble strip; does not include rumble paint stripes	Not collected by FDOT, and could not be derived
	48. Left Shoulder Type	No	214	SHLDTYPE and SHLDTYPx—Highway Shoulder Type	Per MIRE 2.0: this refers to left side of roadway in direction of inventory. For undivided roads and divided roads with one direction of inventory, this will be the outside shoulder on the opposing side.	Collected by FDOT
	49. Left Shoulder Total Width	No	214	SLDWIDTH and SHLDWTHx—Highway Shoulder Width	Per MIRE 2.0: this refers to left side of roadway in direction of inventory. For undivided roads and divided roads with one direction of inventory, this will be the outside shoulder on the opposing side.	Collected by FDOT

Section	MIRE Element Name	FDE?	RCI Feature	RCI Characteristic Description	Notes	Data Collection
Roadway Segment	50. Left Paved Shoulder Width	No	214, 216	SHLDTYPE and SHLDTYPx—Highway Shoulder Type; SLDWIDTH and SHLDWTHx—Highway Shoulder Width; BIKELNCD—Bicycle Lane;	Can be derived from SHLDTYPE and SLDWIDTH as well as bikelane and parking data	Collected by FDOT
	51. Left Shoulder Rumble Strip Presence/Type	No	214	SHLDTYPE and SHLDTYPx—Highway Shoulder Type	Code 2 could possibly be used, but the warning device in code 2 includes much more than rumble strip; need to add a separate code for rumble strip; does not include rumble paint stripes	Not collected by FDOT, and could not be derived
	52. Sidewalk Presence	No	216	SIDWLKWD—Sidewalk Width & Separation		Collected by FDOT
	53. Curb Presence	No	214	SHLDTYPE and SHLDTYPx—Highway Shoulder Type	Possibly can be derived from SHLDTYPE (Highway Shoulder Type, Code 0, 6, 8) and SHLDTYPx	Collected by FDOT
	54. Curb Type	No			MIRE calls for sloping curb and vertical curb; RCI only collects whether the curb exists or not	Not collected by FDOT, and could not be derived
	55. Median Type	Yes	215	RDMEDIAN—Highway Median Type		Collected by FDOT
	56. Median Width	No	215	MEDWIDTH—Highway Median Width		Collected by FDOT
	57. Median Barrier Presence/Type	No	215	MDBARTYP—Type of Median Barrier		Collected by FDOT
	58. Median (Inner) Paved Shoulder Width	No	219	ISLDWDTH—Inside Shoulder Width ISLDWTHx- Inside Shoulder Width (x=2,3)		Collected by FDOT
	59. Median Shoulder Rumble Strip Presence/Type	No	219	ISLDTYPE- Inside Shoulder Type	Code 2 could possibly be used, but the warning device in code 2 includes much more than rumble strip; need to add a separate code for rumble strip	Not collected by FDOT, and could not be derived

Section	MIRE Element Name	FDE?	RCI Feature	RCI Characteristic Description	Notes	Data Collection
Roadway Segment	60. Median Sideslope	No				Not collected by FDOT, and could not be derived
	61. Median Sideslope Width	No				Not collected by FDOT, and could not be derived
	62. Median Crossover/Left-Turn Lane Type	No	257	CROVERLG—Length of Crossover	see CROVERLG—Length of Crossover	Collected by FDOT
	63. Roadside Clearzone Width	No				Not collected by FDOT, and could not be derived
	64. Right Sideslope	No				Not collected by FDOT, and could not be derived
	65. Right Sideslope Width	No				Not collected by FDOT, and could not be derived
	66. Left Sideslope	No				Not collected by FDOT, and could not be derived
	67. Left Sideslope Width	No				Not collected by FDOT, and could not be derived
	70. Major Commercial Driveway Count	No				Not collected by FDOT, and could not be derived
	71. Minor Commercial Driveway Count	No				Not collected by FDOT, and could not be derived

Section	MIRE Element Name	FDE?	RCI Feature	RCI Characteristic Description	Notes	Data Collection
Roadway Segment	72. Major Residential Driveway Count	No				Not collected by FDOT, and could not be derived
	73. Minor Residential Driveway Count	No				Not collected by FDOT, and could not be derived
	74. Major Industrial/Institutional Driveway Count	No				Not collected by FDOT, and could not be derived
	75. Minor Industrial/Institutional Driveway Count	No				Not collected by FDOT, and could not be derived
	76. Other Driveway Count	No				Not collected by FDOT, and could not be derived
	77. Terrain Type	No	118	TERRAIN-Type of Land Terrain	Data collected only for HPMS Samples on rural roadways only and not conflated to the whole roadway.	Collected by FDOT
	78. Number of Signalized Intersections in Segment	No	118	ATGRSIG- Signals At-Grade Intersections	Data collected only for HPMS Samples on partial or no access control only and not conflated to the whole roadway.	Collected by FDOT
	79. Number of Stop-Controlled Intersections in Segment	No	118	ATGRSTOP- Stop Signs At-Grade Intersections	Data collected only for HPMS Samples on partial or no access control only and not conflated to the whole roadway.	Collected by FDOT
	80. Number of Uncontrolled/Other Intersections in Segment	No	118	ATGROTHR- Other or No Control At-Grade Intersections	Data collected only for HPMS Samples on partial or no access control only and not conflated to the whole roadway.	Collected by FDOT
	81. Annual Average Daily Traffic (AADT)	Yes	331	SECTADT—Section Average ADT		Collected by FDOT
	82. AADT Year	Yes	331	AADTDATE—AADT Date		Collected by FDOT

Section	MIRE Element Name	FDE?	RCI Feature	RCI Characteristic Description	Notes	Data Collection
Roadway Segment	83. AADT Annual Escalation Percentage	No			Growth factors calculated during End of Year Processing (EOYP)—SW_GRFCT table in Oracle—Statewide growth factors by FUNCLASS	Collected by FDOT
	84. Percent Single Unit Trucks or Single Truck AADT	No			Oracle table BIDIR_CLASS contains volumes & percentages by classification TMSCLS has class and TOTVOL by direction, daily; 331 AVGTFAC contains truck factors for classes 4—13	Collected by FDOT
	85. Percent Combination Trucks or Combination Truck AADT	No			Oracle table BIDIR_CLASS contains volumes & percentages by classification TMSCLS has class and TOTVOL by direction, daily; 331 AVGTFAC contains truck factors for classes 4—13	Collected by FDOT
	86. Percentage Trucks or Truck AADT	No	331	AVGTFAC- Section Average T Factor	Oracle table BIDIR_CLASS contains volumes & percentages by classification TMSCLS has class and TOTVOL by direction, daily	Collected by FDOT
	87. Total Daily Two-Way Pedestrian Count/Exposure	No			In development; available in Non-motorized module of MS2 application	Not collected by FDOT, and could not be derived
	88. Bicycle Count/Exposure	No			In development; available in Non-motorized module of MS2 application	Not collected by FDOT, and could not be derived
	89. Motorcycle Count or Percentage	No			Oracle table BIDIR_CLASS contains volumes & percentages by classification TMSCLS has class and TOTVOL by direction, daily	Collected by FDOT





Section	MIRE Element Name	FDE?	RCI Feature	RCI Characteristic Description	Notes	Data Collection
Roadway Segment	90. Hourly Traffic Volumes (or Peak and Off-peak AADT)	No			Oracle table TMSCNT contains hourly volumes and TOTVOL by direction, daily	Collected by FDOT
	91. K-Factor	No	331	AVGKFACT-K Factor		Collected by FDOT
	92. Peak Hour Directional Factor	No	331	AVGDFACT-Roadway Section Average D Factor		Collected by FDOT
	93. One/Two-Way Operations	Yes	120	TYPEROAD—Type of Road		Collected by FDOT
	94. Speed Limit	No	331	MAXSPEED—Maximum Speed Limit		Collected by FDOT
	95. Truck Speed Limit	No				Not collected by FDOT, and could not be derived
	96. Nighttime Speed Limit	No				Not collected by FDOT, and could not be derived
	97. 85th Percentile Speed	No			Is calculated by FDOT using probe speed data; can be gathered from Source Book. Also available in Oracle table TMSSPD (SPD85THP)	Collected by FDOT
	98. Mean Speed	No			Is calculated by FDOT using probe speed data; can be gathered from Source Book	Collected by FDOT
	99. School Zone Indicator	No	323	SCHLNAME-School Name		Collected by FDOT

Section	MIRE Element Name	FDE?	RCI Feature	RCI Characteristic Description	Notes	Data Collection
Roadway Segment	100. On-street Parking Presence	No	118, 216, 313	TYPEOP—Type of Parking; SDWLKBCD—Sidewalk Barrier Code (Code 1); PKRSTIME—Parking Restriction Time	Collected for HPMS Samples in Urban Areas only	Collected by FDOT
	101. On-street Parking Type	No	313, 118	TYPEPARK—Type of Roadway Parking; TYPEOP—Type of Parking	Collected for HPMS Samples in Urban Areas only	Collected by FDOT
	102. Roadway Lighting	No			F 341 with NOSGMLUM, NOSTDLUM, NOUDKLUM could be used. But it does not exactly match the MIRE element; Office of Maintenance began collecting this information, but not ready yet.	Not collected by FDOT, and could not be derived
	103. Toll Charged	No	119	TOLLCHGS- Toll Charges		Collected by FDOT
	104. Toll Type	No	119	TOLLTYPE- Toll Type		Collected by FDOT
	105. Edgeline Presence/Width	No				Not collected by FDOT, and could not be derived
	106. Centerline Presence/Width	No				Not collected by FDOT, and could not be derived
	107. Centerline Rumble Strip Presence/Type	No				Not collected by FDOT, and could not be derived
	108. Passing Zone Percentage	No	118	SIT1500- % of Passing Sight Distance $\geq 1500$ feet	Collected for Rural HPMS Samples on undivided roadway with less than 4 lanes only	Collected by FDOT
	109. Bridge Numbers for Bridges in Segment	No	258	BRIDGENO- Bridge Number		Collected by FDOT

Section	MIRE Element Name	FDE?	RCI Feature	RCI Characteristic Description	Notes	Data Collection
At-grade Intersection/Junctions	110. Unique Junction Identifier	Yes			FDOT is creating an intersection numbering system	Collected by FDOT
	111. Type of Intersection/Junction	No			Can be calculated from other available information	Collected by FDOT
	112. Location Identifier for Road 1 Crossing Point	Yes			Can be calculated from other available information	Collected by FDOT
	113. Location Identifier for Road 2 Crossing Point	Yes			Can be calculated from other available information	Collected by FDOT
	114. Location Identifier for Additional Road Crossing Points	No			Can be calculated from other available information	Collected by FDOT
	115. Intersection/Junction Number of Legs	No				Not collected by FDOT, and could not be derived
	116. Intersection/Junction Geometry	Yes			E.g. T-Intersection, Y-Intersection, Cross-Intersection (four legs), Five or more legs and not circular, Roundabout, J-Turn. Possibly use CARS crash field TYPEINTSCT to derive some information	Not collected by FDOT, and could not be derived
	117. School Zone Indicator	No	323	SCHLNAME-School Name	Using F323, this could be derived.	Collected by FDOT
	118. Railroad Crossing Number	No	253	RRCROSNO—National RR Grade Crossing Number		Collected by FDOT
	119. Intersecting Angle	No			Some information is available INTSDIRx—Intersection Direction (x=1-9), Degrees of the smallest angle between any two legs of the intersection. Degrees for intersecting are only recorded as On Left at 45, 90, and 145 or On Right at 45, 90, and 145. Actual degrees are rounded to the nearest in the aforementioned list.	Collected by FDOT

Section	MIRE Element Name	FDE?	RCI Feature	RCI Characteristic Description	Notes	Data Collection
At-grade Intersection/Junctions	120. Intersection/Junction Offset Distance	No				Not collected by FDOT, and could not be derived
	110. Unique Junction Identifier	Yes			FDOT is creating an intersection numbering system	Collected by FDOT
	111. Type of Intersection/Junction	No			Can be calculated from other available information	Collected by FDOT
	112. Location Identifier for Road 1 Crossing Point	Yes			Can be calculated from other available information	Collected by FDOT
	113. Location Identifier for Road 2 Crossing Point	Yes			Can be calculated from other available information	Collected by FDOT
	114. Location Identifier for Additional Road Crossing Points	No			Can be calculated from other available information	Collected by FDOT
	115. Intersection/Junction Number of Legs	No				Not collected by FDOT, and could not be derived
	116. Intersection/Junction Geometry	Yes			E.g. T-Intersection, Y-Intersection, Cross-Intersection (four legs), Five or more legs and not circular, Roundabout, J-Turn. Possibly use CARS crash field TYPEINTSCT to derive some information	Not collected by FDOT, and could not be derived
	117. School Zone Indicator	No	323	SCHLNAME-School Name	Using F323, this could be derived.	Collected by FDOT
	118. Railroad Crossing Number	No	253	RRCROSNO—National RR Grade Crossing Number		Collected by FDOT

Section	MIRE Element Name	FDE?	RCI Feature	RCI Characteristic Description	Notes	Data Collection
At-grade Intersection/Junctions	119. Intersecting Angle	No			Some information is available INTSDIRx—Intersection Direction (x=1-9), Degrees of the smallest angle between any two legs of the intersection. Degrees for intersecting are only recorded as On Left at 45, 90, and 145 or On Right at 45, 90, and 145. Actual degrees are rounded to the nearest in the aforementioned list.	Collected by FDOT
	120. Intersection/Junction Offset Distance	No				Not collected by FDOT, and could not be derived
	121. Intersection/Junction Traffic Control	Yes			Some info is available ATGROTHR—Other or No control At-Grade Intersections, ATGRSIG—Signals At-Grade Intersections, ATGRSTOP—Stop Signs At-Grade Intersections; Not all of the MIRE attributes are not covered in RCI.; And this is only collected on HPMS Samples	Not collected by FDOT, and could not be derived
	122. Signalization Presence/Type	No	118	SIGPREV—Prevailing Type of Signalizations	Collected for HPMS Samples in Urban Areas only	Collected by FDOT
	123. Intersection/Junction Lighting	No			F 341 with NOSGMLUM, NOSTDLUM, NOUDKLUM could be used. But it does not exactly match the MIRE element; Office of Maintenance began collecting this information, but not ready yet.	Not collected by FDOT, and could not be derived
	124. Circular Intersection—Number of Circulatory Lanes	No	212	NOLANES-Number of Roadway Lanes	NOLANES-Number of Roadway Lanes at the roundabout/circular intersection can be used to gather this information	Collected by FDOT
	125. Circular Intersection—Circulatory Lane Width	No	212	NOLANES-Number of Roadway Lanes; SURWIDTH-Pavement Surface Width	Number of Roadway Lanes and Pavement Surface Width at the roundabout/circular intersection can be used to gather this information	Collected by FDOT

Section	MIRE Element Name	FDE?	RCI Feature	RCI Characteristic Description	Notes	Data Collection
At-grade Intersection/Junctions	126. Circular Intersection—Inscribed Diameter	No				Not collected by FDOT, and could not be derived
	127. Circular Intersection—Bicycle Facility	No	216	BIKELNCD—Bicycle Lane	Bicycle Lane at the roundabout/circular intersection can be used to gather this information	Collected by FDOT
Intersection Leg (each approach)	128. Intersection Identifier for this Approach	No			FDOT is creating an intersection numbering system. Record separately for each approach.	Collected by FDOT
	129. Unique Approach Identifier	Yes				Not collected by FDOT, and could not be derived
	130. Approach AADT	No	331	SECTADT—Section Average ADT	Available only for SHS approaches. Record separately for each approach.	Collected by FDOT
	131. Approach AADT Year	No	331	AADTDATE—AADT Date	Available only for SHS approaches. Record separately for each approach.	Collected by FDOT
	132. Approach Mode	No			Available only for SHS approaches. Record separately for each approach.	Collected by FDOT
	133. Approach Directional Flow	No			Available only for SHS approaches. Record separately for each approach.	Collected by FDOT
	134. Number of Approach Through Lanes	No	212	NOLANES—Number of Roadway Lanes	Available only for SHS approaches. Record separately for each approach.	Collected by FDOT
	135. Left-Turn Lane Type	No			Available only for SHS approaches. Record separately for each approach.	Collected by FDOT
	136. Number of Exclusive Left-Turn Lanes	No	213	AUXLNTP—Auxiliary Lane Type; AUXKNUM—Number of Auxiliary Lanes	Available only for SHS approaches. Record separately for each approach.	Collected by FDOT
	137. Amount of Left-Turn Lane Offset	No				Not collected by FDOT, and could not be derived

Section	MIRE Element Name	FDE?	RCI Feature	RCI Characteristic Description	Notes	Data Collection
Intersection Leg (each approach)	138. Right-Turn Channelization	No				Not collected by FDOT, and could not be derived
	139. Traffic Control of Exclusive Right-Turn Lanes	No				Not collected by FDOT, and could not be derived
	140. Number of Exclusive Right-Turn Lanes	No	213	AUXLNTP—Auxiliary Lane Type; AUXKNUM—Number of Auxiliary Lanes	Available only for SHS approaches. Record separately for each approach.	Collected by FDOT
	141. Length of Exclusive Left-Turn Lanes	No	213	AUXLNTP—Auxiliary Lane Type;	This could be derived from the BMP and EMP of F213. Available only SHS approaches. Record separately for each approach.	Collected by FDOT
	142. Length of Exclusive Right-Turn Lanes	No	213	AUXLNTP—Auxiliary Lane Type;	This could be derived from the BMP and EMP of F213. Available only SHS approaches. Record separately for each approach.	Collected by FDOT
	143. Median Type at Intersection	No	215	RDMEAN—Highway Median Type	Available only SHS approaches. Record separately for each approach.	Collected by FDOT
	144. Approach Traffic Control	No	118, 322	ATGROTHR, ATGSIG; SIGNALTY	F118 Collects this only for HPMS Samples; F322 collects this but only if signalized. Available only SHS approaches. Record separately for each approach.	Collected by FDOT
	145. Approach Left Turn Protection	No			Record separately for each approach, e.g. Unsignalized, Signalized-Permissive, Signalized-Protected, Signalized-Protected-Permissive	Not collected by FDOT, and could not be derived
	146. Signal Progression	No				Not collected by FDOT, and could not be derived

Section	MIRE Element Name	FDE?	RCI Feature	RCI Characteristic Description	Notes	Data Collection
Intersection Leg (each approach)	147. Crosswalk Presence/Type	No			F 453 indicates the presence of a crosswalk, but does not provide the specific location and type of crosswalk; Traffic Engineering and Operations Office is doing a research on crosswalk identification and location	Not collected by FDOT, and could not be derived
	148. Pedestrian Signal Activation Type	No				Not collected by FDOT, and could not be derived
	149. Pedestrian Signal Presence/Type	No				Not collected by FDOT, and could not be derived
	150. Crossing Pedestrian Count/Exposure	No				Not collected by FDOT, and could not be derived
	151. Left/Right Turn Prohibitions	No	312	TURNMOVE—Turning Movement Restriction	Available only SHS approaches. Record separately for each approach.	Collected by FDOT
	152. Right Turn-On-Red Prohibitions	No	312	TURNMOVE—Turning Movement Restriction	Available only SHS approaches. Record separately for each approach.	Collected by FDOT
	153. Left Turn Counts/Percent	No				Not collected by FDOT, and could not be derived
	154. Year of Left Turn Counts/Percent	No				Not collected by FDOT, and could not be derived
	155. Right Turn Counts/Percent	No				Not collected by FDOT, and could not be derived



Section	MIRE Element Name	FDE?	RCI Feature	RCI Characteristic Description	Notes	Data Collection
Intersection Leg (each approach)	156. Year of Right Turn Counts/Percent	No				Not collected by FDOT, and could not be derived
	157. Transverse Rumble Strip Presence	No	214	SHLDTYPE and SHLDTYPx—Highway Shoulder Type	Code 2 could possibly be used, but the warning device in code 2 includes much more than rumble strip; need to add a separate code for rumble strip	Not collected by FDOT, and could not be derived
	158. Circular Intersection—Entry Width	No				Not collected by FDOT, and could not be derived
	159. Circular Intersection—Number of Entry Lanes	No	212	NOLANES-Number of Roadway Lanes	NOLANES-Number of Roadway Lanes at the entry of roundabout/circular intersection can be used to gather this information. Available only SHS approaches. Record separately for each approach.	Collected by FDOT
	160. Circular Intersection—Presence/Type of Exclusive Right-Turn Lane	No	213	AUXLNTYP—Auxiliary Lane Type;	Auxiliary Lane Type at the entry of roundabout/circular intersection can be used to gather this information. Available only SHS approaches. Record separately for each approach.	Collected by FDOT
	161. Circular Intersection—Entry Radius	No				Not collected by FDOT, and could not be derived
	162. Circular Intersection—Exit Width	No				Not collected by FDOT, and could not be derived
	163. Circular Intersection—Number of Exit Lanes	No	212	NOLANES-Number of Roadway Lanes	NOLANES-Number of Roadway Lanes at the exit of roundabout/circular intersection can be used to gather this information. Available only SHS approaches. Record separately for each approach.	Collected by FDOT

Section	MIRE Element Name	FDE?	RCI Feature	RCI Characteristic Description	Notes	Data Collection
Intersection Leg (each approach)	164. Circular Intersection—Exit Radius	No				Not collected by FDOT, and could not be derived
	165. Circular Intersection—Pedestrian Facility	No	453		F 453 could be used to identify the presence of crosswalk, but does not exactly provide the type of information per MIRE	Not collected by FDOT, and could not be derived
	166. Circular Intersection—Crosswalk Location	No	453		F 453 could be used to identify the presence of crosswalk, but does not exactly provide the type of information per MIRE	Not collected by FDOT, and could not be derived
	167. Circular Intersection—Island Width	No	215	MEDWIDTH—Highway Median Width	Available only SHS approaches. Record separately for each approach.	Collected by FDOT
Interchange/Ramp	168. Unique Interchange Identifier	Yes	252	EXITNO-Interchange/Exit Number		Collected by FDOT
	169. Location Identifier for Road 1 Crossing Point	No	258	FACCROSS—Facility Crossed		Collected by FDOT
	170. Location Identifier for Road 2 Crossing Point	No	258	FACCROSS—Facility Crossed		Collected by FDOT
	171. Location Identifier for Additional Road Crossing Points	No	258	FACCROSS—Facility Crossed		Collected by FDOT
	172. Interchange Type	Yes	252	INTERCHG—Type of Interchange	Not all MIRE attributes are covered in RCI	Collected by FDOT
	173. Interchange Lighting	No			F 341 with NOSGMLUM, NOSTDLUM, NOUDKLUM could be used. But it does not exactly match the MIRE element	Not collected by FDOT, and could not be derived
	174. Interchange Entering Volume	No	331	SECTADT—Section Average ADT	Can be calculated from other available information	Collected by FDOT
	175. Interchange Identifier for this Ramp	No	252	EXITNO-Interchange/Exit Number		Collected by FDOT



Section	MIRE Element Name	FDE?	RCI Feature	RCI Characteristic Description	Notes	Data Collection
Interchange/Ramp	176. Unique Ramp Identifier	No			Each ramp has a roadway ID	Collected by FDOT
	177. Ramp Length	Yes			Can be calculated from other available information	Collected by FDOT
	178. Ramp Acceleration Lane Length	No	213	AUXLN TYP-Auxiliary Lane Type	Can be calculated from other available information	Collected by FDOT
	179. Ramp Deceleration Lane Length	No	213	AUXLN TYP-Auxiliary Lane Type	Can be calculated from other available information	Collected by FDOT
	180. Ramp Number of Lanes	No	212	NOLANES-Number of Roadway Lanes		Collected by FDOT
	181. Ramp AADT	Yes	331	SECTADT—Section Average ADT		Collected by FDOT
	182. Year of Ramp AADT	Yes	331	AADTDATE—AADT Date		Collected by FDOT
	183. Ramp Metering	No				Not collected by FDOT, and could not be derived
	184. Ramp Advisory Speed Limit	No				Not collected by FDOT, and could not be derived
	185. Roadway Type at Beginning Ramp Terminal	Yes			Can be calculated from other available information	Collected by FDOT
	186. Roadway Feature at Beginning Ramp Terminal	No			Can be calculated from other available information	Collected by FDOT
	187. Location Identifier for Roadway at Beginning Ramp Terminal	Yes			Can be calculated from other available information	Collected by FDOT
	188. Location of Beginning Ramp Terminal Relative to Mainline Flow	No			Can be calculated from other available information	Collected by FDOT



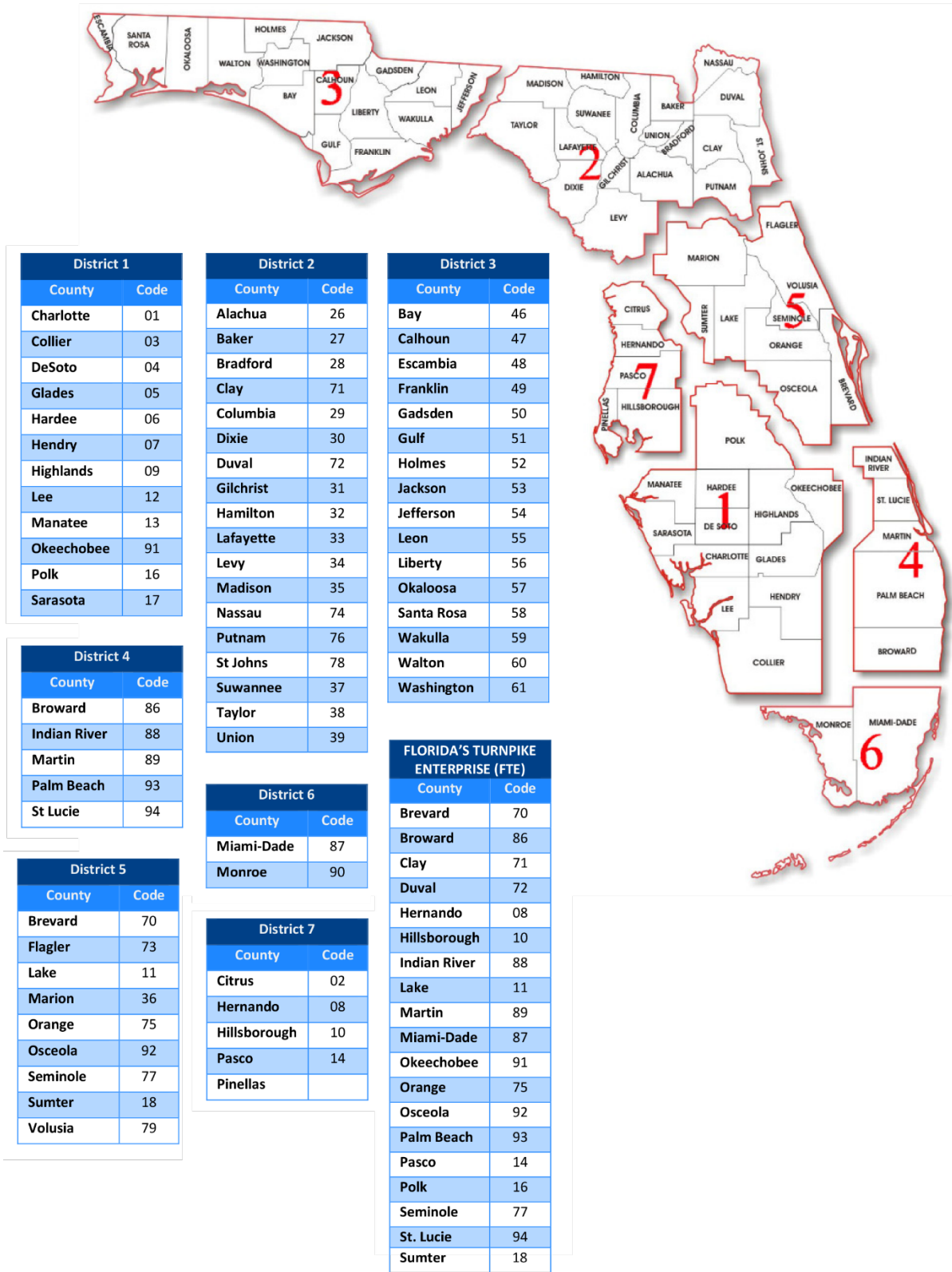
Section	MIRE Element Name	FDE?	RCI Feature	RCI Characteristic Description	Notes	Data Collection
Interchange/Ramp	189. Roadway Type at Ending Ramp Terminal	Yes			Can be calculated from other available information	Collected by FDOT
	190. Roadway Feature at Ending Ramp Terminal	No			Can be calculated from other available information	Collected by FDOT
	191. Location Identifier for Roadway at Ending Ramp Terminal	Yes			Can be calculated from other available information	Collected by FDOT
	192. Location of Ending Ramp Terminal Relative to Mainline Flow	No			Can be calculated from other available information	Collected by FDOT
Horizontal Curve	193. Curve Identifiers	No	111, 221	STROADNO-State Road Number HRZDGCRV-Horizontal Degree of Curve HRZPTINT-Horizontal Point of Intersection	Possibly can be derived from HRZDGCRV and HRZPTINT	Collected by FDOT
	194. Curve Feature Type	No				Not collected by FDOT, and could not be derived
	195. Horizontal Curve Degree or Radius	No	221	HRZDGCRV—Horizontal Degree of Curve		Collected by FDOT
	196. Horizontal Curve Length	No	221	HRZDGCRV-Horizontal Degree of Curve HRZPTINT-Horizontal Point of Intersection		Collected by FDOT
	197. Curve Superelevation	No				Not collected by FDOT, and could not be derived



Section	MIRE Element Name	FDE?	RCI Feature	RCI Characteristic Description	Notes	Data Collection
Horizontal Curve	198. Horizontal Transition/Spiral Curve Presence	No				Not collected by FDOT, and could not be derived
	199. Horizontal Curve Intersection/Deflection Angle	No	221	HRZCANGl- Horizontal Curve Central Angle		Collected by FDOT
	200. Horizontal Curve Direction	No	221	BEARING-Compass Bearing		Collected by FDOT
Vertical Grade	201. Grade Identifiers and Linkage Elements	No				Not collected by FDOT, and could not be derived
	202. Vertical Alignment Feature Type	No				Not collected by FDOT, and could not be derived
	203. Percent of Gradient	No	118	GRACLASX-Grades by Class (x=A-F)	HPMS Samples only for a limited set of functional classifications; Alignment Adequacy	Collected by FDOT
	204. Grade Length	No				Not collected by FDOT, and could not be derived
	205. Vertical Curve Length	No				Not collected by FDOT, and could not be derived



## **E. FLORIDA DEPARTMENT OF TRANSPORTATION—DISTRICT MAP**





## F. COUNTY NUMBERS— ALPHABETICAL/NUMERICAL

### ALPHABETICAL COUNTY LIST

CO #	County Name	CO #	County Name	CO #	County Name	CO #	County Name
26	Alachua	49	Franklin	12	Lee	15	Pinellas
27	Baker	50	Gadsden	55	Leon	16	Polk
46	Bay	31	Gilchrist	34	Levy	76	Putnam
28	Bradford	05	Glades	56	Liberty	58	Santa Rosa
70	Brevard	51	Gulf	35	Madison	17	Sarasota
86	Broward	32	Hamilton	13	Manatee	77	Seminole
47	Calhoun	06	Hardee	36	Marion	78	St Johns
01	Charlotte	07	Hendry	89	Martin	94	St Lucie
02	Citrus	08	Hernando	87	Miami-Dade	18	Sumter
71	Clay	09	Highlands	90	Monroe	37	Suwannee
03	Collier	10	Hillsborough	74	Nassau	38	Taylor
29	Columbia	52	Holmes	57	Okaloosa	39	Union
04	DeSoto	88	Indian River	91	Okeechobee	79	Volusia
30	Dixie	53	Jackson	75	Orange	59	Wakulla
72	Duval	54	Jefferson	92	Osceola	60	Walton
48	Escambia	33	Lafayette	93	Palm Beach	61	Washington
73	Flagler	11	Lake	14	Pasco		

### NUMERICAL COUNTY LIST

CO #	County Name	CO #	County Name	CO #	County Name	CO #	County Name
01	Charlotte	18	Sumter	48	Escambia	73	Flagler
02	Citrus	26	Alachua	49	Franklin	74	Nassau
03	Collier	27	Baker	50	Gadsden	75	Orange
04	DeSoto	28	Bradford	51	Gulf	76	Putnam
05	Glades	29	Columbia	52	Holmes	77	Seminole
06	Hardee	30	Dixie	53	Jackson	78	St Johns
07	Hendry	31	Gilchrist	54	Jefferson	79	Volusia
08	Hernando	32	Hamilton	55	Leon	86	Broward
09	Highlands	33	Lafayette	56	Liberty	87	Miami-Dade
10	Hillsborough	34	Levy	57	Okaloosa	88	Indian River
11	Lake	35	Madison	58	Santa Rosa	89	Martin
12	Lee	36	Marion	59	Wakulla	90	Monroe
13	Manatee	37	Suwannee	60	Walton	91	Okeechobee
14	Pasco	38	Taylor	61	Washington	92	Osceola
15	Pinellas	39	Union	70	Brevard	93	Palm Beach
16	Polk	46	Bay	71	Clay	94	St Lucie
17	Sarasota	47	Calhoun	72	Duval		



## G. FEATURES BY OWNING OFFICE

### Office of Maintenance

137: Maintenance Area Boundary  
217: Sidewalks  
241: Crossdrains  
242: Storm Sewers  
243: Off Roadway Areas  
245: Roadside Ditches  
248: Outfall Ditches  
256: Turnouts  
257: Crossovers  
271: Guardrail  
272: Fencing  
273: Cable Barrier  
275: Miscellaneous Concrete Structures  
341: Lighting System  
411: Roadside Mowing  
412: Weed Control  
413: Landscape Area  
421: Roadside Ditch Cleaning  
422: Median Ditch Cleaning  
431: Parks and Rest Areas  
443: Delineators  
451: Striping  
452: Symbols and Messages  
453: Cross Walks  
454: Stop Bars  
455: Raised Pavement Markers  
460: Attenuators  
480: Highway Signs  
481: Highway Maintenance Classification

### Freight and Multimodal Operations Office

116: Freight Network  
901: Rail Line Facility  
902: Passenger Rail  
903: Rail Passenger Station Name

### Traffic Engineering and Operations Office

311: Speed Limits  
312: Turning Restrictions  
313: Parking  
315: TSMO Projects (pending approval)  
322: Signals  
323: School Zones

### Systems Implementation Office

146: Access Management  
147: Strategic Intermodal System  
801: Trails

### Transportation Data & Analytics Office

111: State Road System  
112: Federal System  
113: AASHTO  
114: Local System  
115: Special Designations  
117: FIPS Designated Boundaries  
118: HPMS  
119: HPMS Universe  
120: Type of Road  
121: Functional Classification  
122: Facility Classification  
123: Proposed Designations  
124: Urban Classification  
125: Adjacent Land Classification  
126: Context Classification  
138: Roadway Realignment  
139: New Alignment  
140: Section Status Exception  
141: Stationing Exceptions  
142: Managed Lanes  
143: Associated Station Exception  
212: Through Lanes  
213: Auxiliary Lanes  
214: Outside Shoulders  
215: Median  
216: Bike Lanes/Pedestrian Facilities  
219: Inside Shoulders  
220: Non-Curve Intersection Point  
221: Horizontal Curve  
230: Surface Description  
232: Surface Layers  
233: Base  
251: Intersection  
252: Interchanges  
253: Railroad Crossings  
258: Structures  
320: Mile Marker Signs  
326: Traffic Monitoring Sites  
330: Traffic Flow Break Station  
331: Traffic Flow Breaks  
360: Toll Plazas  
361: Service Plazas



## H. FEATURES BY TYPE

### Administrative Features

111: State Road System  
112: Federal System  
113: AASHTO  
114: Local System  
115: Special Designation  
116: Freight Network  
117: FIPS Designated Boundaries  
118: HPMS  
119: HPMS Universe  
120: Type of Road  
121: Functional Classification  
122: Facility Classification  
123: Proposed Designations  
124: Urban Classification  
125: Adjacent Land Classification  
126: Context Classification  
137: Maintenance Area Boundary  
138: Roadway Realignment  
139: New Alignment  
140: Section Status Exception  
141: Stationing Exceptions  
142: Managed Lanes  
143: Associated Station Exception  
146: Access Management  
147: Strategic Intermodal System

### Maintenance Features

411: Roadside Mowing  
412: Weed Control  
413: Landscape Area  
421: Roadside Ditch Cleaning  
422: Median Ditch Cleaning  
431: Parks and Rest Areas  
443: Delineators  
451: Striping  
452: Symbols and Messages  
453: Crosswalks  
454: Stop Bars  
455: Raised Pavement Markers  
460: Attenuators  
480: Highway Signs  
481: Highway Maintenance Classification

### Rail Features

901: Rail Line Facility  
902: Passenger Rail  
903: Railroad Passenger Station Name

### Trail Features

801: Trails

### Operational Features

311: Speed Limits  
312: Turning Restrictions  
313: Parking  
315: TSMO Projects (pending approval)  
320: Mile Marker Signs  
322: Signals  
323: School Zones  
326: Traffic Monitoring Sites  
330: Traffic Flow Break Station  
331: Traffic Flow Breaks  
341: Lighting System  
360: Toll Plazas  
361: Service Plazas

### Physical Features

212: Through Lanes  
213: Auxiliary Lanes  
214: Outside Shoulders  
215: Median  
216: Bike Lanes/Pedestrian Facilities  
217: Sidewalks  
219: Inside Shoulders  
220: Non-Curve Intersection Point  
221: Horizontal Curve  
230: Surface Description  
232: Surface Layers  
233: Base  
241: Crossdrains  
242: Storm Sewers  
243: Off Roadway Areas  
245: Roadside Ditches  
248: Outfall Ditches  
251: Intersection  
252: Interchanges  
253: Railroad Crossings  
256: Turnouts  
257: Crossovers  
258: Structures  
271: Guardrail  
272: Fencing  
273: Cable Barriers  
275: Miscellaneous Concrete Structures



# I. FEATURES—ALPHABETICAL

Code	Feature
111	State Road System
112	Federal System
113	AASHTO
114	Local System
115	Special Designation
116	Freight Network
117	FIPS Designated Boundaries
118	HPMS
119	HPMS Universe
120	Type of Road
121	Functional Classification
122	Facility Classification
123	Proposed Designations
124	Urban Classification
125	Adjacent Land Classification
126	Context Classification
137	Maintenance Area Boundary
138	Roadway Realignment
139	New Alignment
140	Section Status Exception
141	Stationing Exceptions
142	Managed Lanes
143	Associated Station Exception
146	Access Management
147	Strategic Intermodal System
212	Through Lanes
213	Auxiliary Lanes
214	Outside Shoulders
215	Median
216	Bike Lanes/Pedestrian Facilities
217	Sidewalks
219	Inside Shoulders
220	Non-Curve Intersection Point
221	Horizontal Curve
230	Surface Description
232	Surface Layers
233	Base
241	Crossdrains
242	Storm Sewers
243	Off Roadway Areas
245	Roadside Ditches
248	Outfall Ditches

Code	Feature
251	Intersection
252	Interchanges
253	Railroad Crossings
256	Turnouts
257	Crossovers
258	Structures
271	Guardrail
272	Fencing
273	Cable Barriers
275	Miscellaneous Concrete Structures
311	Speed Limits
312	Turning Restrictions
313	Parking
315	TSMO Projects (pending approval)
320	Mile Marker Signs
322	Signals
323	School Zones
326	Traffic Monitoring Sites
330	Traffic Flow Break Station
331	Traffic Flow Breaks
341	Lighting System
360	Toll Plazas
361	Service Plazas
411	Roadside Mowing
412	Weed Control
413	Landscape Area
421	Roadside Ditch Cleaning
422	Median Ditch Cleaning
431	Parks and Rest Areas
443	Delineators
451	Striping
452	Symbols and Messages
453	Crosswalks
454	Stop Bars
455	Raised Pavement Markers
460	Attenuators
480	Highway Signs
481	Highway Maintenance Classification
801	Trails
901	Rail Line Facility
902	Passenger Rail
903	Railroad Passenger Station Name





## J. CHARACTERISTICS LISTING— ALPHABETICAL

Characteristic	Feature	Characteristic Description
AADTDATE	331	AADT DATE
AADTTYPE	331	AADT TYPE
ACMANCLS	146	ACCESS MGMT CLASSIFICATION
ATCONDTN	460	ATTENUATOR CONDITION
ATGROTHR	118	OTHR OR NO CONTROL AT-GR.INT.
ATGRSIG	118	SIGNALS AT-GRADE INTERSECT.
ATGRSTOP	118	STOP SIGNS AT-GRADE INTERSECT.
ATINSPEC	460	ATTENUATOR INSPECTION DATE
ATREPAIR	460	ATTENUATOR REPAIR DATE
ATRMRS1	460	ATTENUATOR REMARKS-1
ATRMRS2	460	ATTENUATOR REMARKS-2
ATTLOCCD	460	ATTENUATOR LOCATION
ATTMODEL	460	ATTENUATOR MODEL NUMBER
ATTYPECD	460	ATTENUATOR TYPE
ATTYPINS	460	ATTENUATOR INSPECTION TYPE
AUXLNTP	213	AUXILIARY LANE TYPE
AUXLNUM	213	NUMBER OF AUXILIARY LANES
AUXLNWTH	213	AVERAGE AUXILIARY LANE WIDTH
AVGDFACT	331	RDWY SECTION AVG "D" FACTOR
AVGKFACT	331	STANDARD K FACTOR
AVGTFACT	331	SECTION AVERAGE T FACTOR
BARRWALL	271	BARRIER WALL LENGTH
BASETHIK	119	HPMS BASE THICKNESS
BASETHK	233	ROADWAY BASE THICKNESS
BASETYPE	119	HPMS BASE TYPE
BEARING	221	COMPASS BEARING
BEGSECNM	251	BEG RDWY SECTION POINT DESC.
BEGSECPT	141	BEG SECT PT OF EXCEPTION FIELD
BEGSECPT	143	BEG SECT PT OF EXCEPTION FIELD
BIKELNCD	216	BICYCLE LANE
BIKSLTCD	216	BICYCLE KEYHOLE LANE
BOLDLAND	413	BOLD LANDSCAPING
BORRPITS	243	NO. OF BORROW PITS
BOXCULHT	241	BOX CULVERT HEIGHT
BOXCULLT	241	BOX CULVERT WIDTH
BOXCULNO	258	BOX CULVERT NUMBER
BRDELIN	443	NO. OF BRIDGE END DELINEATORS

Characteristic	Feature	Characteristic Description
BRIDGENO	258	BRIDGE NUMBER
BXCULGTH	241	BOX CULVERT LENGTH
CABLRTY	273	CABLE BARRIER TYPE
CABLWIRE	273	NUMBER OF CABLE WIRES
CANTSTR	480	NO. CANTILEVER STRUCTURES
CCNUMBER	137	COST CENTER NUMBER
CCTXTCLS	126	CURRENT CONTEXT CLASSIFICATION
CCTXTDTE	126	CURRENT CONTEXT CLASS DATE
CHKDIGIT	253	CHECK DIGIT
CHNLKFCS	272	NO. OF CHAIN LINK FENCES
CMLBMP	142	COMPOSITE MANAGED LANE BEG MP
CMLEMP	142	COMPOSITE MANAGED LANE END MP
CMLRDWY	142	COMPOSITE MANAGED LANE RDWYID
CNPANG30	480	NO. OF CONST.PANELS OH&GN > 30
CNTRLRDES	322	CONTROLLER DESCRIPTION
CROSRDNM	252	CROSSING ROADWAY NAME
CROVERLG	257	LENGTH OF CROSSOVER
CRSDRLGH	241	LENGTH OF CROSSDRAIN
CRSHATCH	452	CROSSHATCHING AREA
CRWALK24	453	NUMBER OF 24 FT. CROSSWALKS
CRWALK36	453	NUMBER OF 36 FT. CROSSWALKS
CRWALK48	453	NUMBER OF 48 FT. CROSSWALKS
CRWALK60	453	NUMBER OF 60 FT. CROSSWALKS
CRWALK72	453	NUMBER OF 72 FT. CROSSWALKS
CURBMARK	452	CURB MARKING AREA
CURCLASA	118	CURVES BY CLASS-CLASS A
CURCLASB	118	CURVES BY CLASS-CLASS B
CURCLASC	118	CURVES BY CLASS-CLASS C
CURCLASD	118	CURVES BY CLASS-CLASS D
CURCLASE	118	CURVES BY CLASS-CLASS E
CURCLASF	118	CURVES BY CLASS-CLASS F
DBLELINE	451	NO. STRIPES-DBL WHITE OR YELLOW
DBLGRAIL	271	DBL.FACE GUARDRAIL LENGTH
DELINEAT	443	NO. GDE PST/HZRD MK DELINEATORS
DTEPKAPP	313	DATE PARKING APPROVED
DTEPKIMP	313	DATE PARKING RESTRICTON IMPLEMENT
DTESZAPP	311	DATE SPEED ZONE APPROVED
DTESZIMP	311	DATE SPEED ZONE IMPLEMENTED
DTETMAPP	312	DATE TURN MOVEMENT APPROVED
DTETMIMP	312	DATE TURN MOVEMENT IMPLEMENTED
ENDSECNM	251	END OF SECT DESC
ENDSECPT	141	END SECT PT OF EXCEPTION FIELD

Characteristic	Feature	Characteristic Description
ENDSECPT	143	END SECT PT OF EXCEPTION FIELD
EXITNO	252	INTERCHANGE/EXIT NUMBER
FACCROSS	258	FACILITY CROSSED
FAHWYSYS	112	FEDERAL HIGHWAY SYSTEM CODE
FCTXTCLS	126	FUTURE CONTEXT CLASSIFICATION
FCTXTDTE	126	FUTURE CONTEXT CLASS DATE
FIPSPLCD	117	FIPS CENSUS PLACE (CITY) CODE
FIPSUACD	117	FHWA URBAN AREA CODE
FLEXTHIK	119	HPMS THICKNESS FLEXIBLE PVMT
FLWBRKID	330	COUNT STATION ASSIGNED TO BRK
FRDRNLEN	245	FRENCH DRAIN RDSIDE DITCH LTH
FRICTCSE	232	FRICTION COURSE
FUNCLASS	121	FUNCTIONAL CLASSIFICATION
GRACLASA	118	GRADES BY CLASS-CLASS A
GRACLASB	118	GRADES BY CLASS-CLASS B
GRACLASC	118	GRADES BY CLASS-CLASS C
GRACLASD	118	GRADES BY CLASS-CLASS D
GRACLASE	118	GRADES BY CLASS-CLASS E
GRACLASF	118	GRADES BY CLASS-CLASS F
GRPSTG30	480	NO. OF GROUND SIGN POST > 30 SF
GRPSTL30	480	NO. OF GROUND SIGN POST < 30 SF
HANDCUT	412	HAND CUT AREA
HIWMNCLS	481	HIGHWAY MAINT. CLASSIFICATION
HORALADQ	118	HORIZONTAL ALIGNMENT ADEQUACY
HOVNUMLN	119	NUMBER OF HOV LANES (ASSOCIATED MANAGED LANES)
HOVTYPE	119	HOV TYPE (ASSOCIATED MANAGED LANES)
HPMSIDNO	118	HPMS SAMPLE ID NUMBER
HRZCANGL	221	HORIZONTAL CURVE CENTRAL ANGLE
HRZDGCRV	221	HORIZONTAL DEGREE OF CURVE
HRZPTINT	221	HORIZONTAL PT. OF INTERSECTION
HWYLOCAL	124	HIGHWAY LOCATION CODE
INLETS	242	NUMBER OF CURB INLETS
INMACHMW	411	INTERMEDIATE MACHINE MOWING
INTERCHG	252	TYPE OF INTERCHANGE
INTSDIR1	251	135 DEGREES LEFT
INTSDIR2	251	90 DEGREES LEFT
INTSDIR3	251	45 DEGREES LEFT
INTSDIR4	251	45 DEGREES RIGHT
INTSDIR5	251	90 DEGREES RIGHT
INTSDIR6	251	135 DEGREES RIGHT
INTSDIR7	251	135 DEGREES L. & 45 DEGREES R.
INTSDIR8	251	90 DEGREES L. & 90 DEGREES R.

Characteristic	Feature	Characteristic Description
INTSDIR9	251	45 DEGREES L. & 135 DEGREES R.
INTSRTPx	251	INTERSECTION SURFACE TYPE1-9
IRIDATE	119	IRI COLLECTION DATE
ISLDTYP2	219	INSIDE SHOULDER TYPE 2
ISLDTYP3	219	INSIDE SHOULDER TYPE 3
ISLDTYPE	219	INSIDE SHOULDER TYPE
ISLDWIDTH	219	INSIDE SHOULDER WIDTH
ISLDWTH2	219	INSIDE SHOULDER WIDTH 2
ISLDWTH3	219	INSIDE SHOULDER WIDTH 3
LANDSCPE	413	LANDSCAPE AREA
LMLBMP	142	LEFT MANAGED LANE BEGIN MP
LMLEMP	142	LEFT MANAGED LANE END MP
LMLRDWY	142	LEFT MANAGED LANE ROADWAY ID
LMTRSTRC	312	LIMITED TURN RESTRICTION TIME
LOADTDEV	118	HPMS SAMPLE TYPE
LOCALNAM	114	LOCAL NAME OF FACILITY
LOCOWNER	341	OWNER OF LOCAL LUMINARIES
MAINBMP	142	MAINLINE BEGIN MP
MAINEMP	142	MAINLINE END MP
MAINRDWY	142	MAINLINE ROADWAY ID
MAINTAGC	322	MAINTAINING AGENCY NAME
MANHOLES	242	NUMBER OF MANHOLES
MAXSPEED	311	MAXIMUM SPEED LIMIT
MDBARTYP	215	TYPE OF MEDIAN BARRIER
MDITCBAS	242	CATCH BASINS
MDITHEXC	422	NO. OF MEDIAN DITCHES (EXCAVA.)
MDITPAVE	422	NO. OF MEDIAN DITCHES (PAVED)
MDITPIPE	422	NO. OF MEDIAN DITCHES (PIPED)
MEDWIDTH	215	HIGHWAY MEDIAN WIDTH
MILEMARK	320	MILE MARKER SIGN
MINSPEED	311	MINIMUM SPEED LIMIT
MISCFCS	272	LENGTH OF MISCELLANEOUS FENCES
MITARACR	243	MITIGATION AREA
MLTRFSEP	214	MANAGED LANE SEPARATOR
MPOAREA	124	MPO AREA
MWEEDCTL	412	MECHANICAL WEED CONTROL AREA
NALIGNDT	138	NEW ALIGNMENT DATE
NALIGNID	138	SECT./SUBSECT.OF NEW ALIGNMENT
NALNBGPT	138	NEW ALIGNMENT BEG. PT.
NALNENPT	138	NEW ALIGNMENT END PT.
NCPTINT	220	NONCURVE PT OF INTERSECTION
NHFN	116	NATIONAL HIGHWAY FREIGHT NETWORK

Characteristic	Feature	Characteristic Description
NHSCID	112	NATIONAL HWY SYS CONNECTOR
NHSDATE	112	NHS DESIGNATION APPROVAL DATE
NOALMPOL	341	NO. OF ALUMINUM POLES
NOBXCULV	241	NUMBER OF BOX CULVERTS
NOCONPOL	341	NO. OF CONCRETE POLES
NOCRDRAN	241	NUMBER OF CROSSDRAIN PIPES
NOFIBPOL	341	NO. OF FIBERGLASS POLES
NOHMSLUM	341	NO. OF HIGH MAST LUMINAIRES
NOISBARR	275	NOISE BARRIER WALL
NOLANES	212	NUMBER OF ROADWAY LANES
NOLOCLUM	341	LUMINAIRES UNDER LOCAL AGRMNT
NOOTHPOL	341	NO. OF HIGH MAST POLES
NOSGMLUM	341	NO. OF SIGN LUMINAIRES
NOSTDLUM	341	NO. OF STANDARD LUMINAIRES
NOSTLPOL	341	NO. OF STEEL POLES
NOUDKLUM	341	NO. OF UNDERDECK LUMINAIRES
NOWODPOL	341	NO. OF WOOD POLES
OALIGNID	139	SECT./SUBSECT.OF OLD ALIGNMENT
OALNBGPT	139	OLD ALIGNMENT BEG. PT.
OALNENPT	139	OLD ALIGNMENT END PT.
OBSPRAY	412	OBSTRUCTION SPRAYING AREA
ODITHAND	248	OUTFALL DITCH BY HAND LENGTH
ODITHAUL	248	OUTFALL DITCH HAULED LENGTH
ODITPAVE	248	OUTFALL DITCH LENGTH PAVED
ODITPIPE	248	OUTFALL DITCH LENGTH PIPED
ODITSPR	248	OUTFALL DITCH SPREAD LENGTH
OLDFASYS	112	OLD FEDERAL HIGHWAY SYSTEM
OSDATE	140	ON OR OFF-SYSTEM DATE
OTHERFCS	272	NO. OF OTHER TYPES OF FENCES
OVRLNSTR	480	NO. FULL OVERLANE STRUCTURES
OVRYTHIK	119	HPMS LAST OVERLAY THICKNESS
OWNAUTH	122	OWNING AUTHORITY
PANLLT30	480	GROUND PANELS LESS THAN 30 FT.
PAVDTLN	245	PAVED ROADSIDE DITCH LENGTH
PAVECOND	230	PAVEMENT CONDITION
PAVINDE	230	PAVEMENT INDEX
PAVTMARK	455	NUMBER OF RAISED PAVT.MARKERS
PEAKLANE	118	NO. LANES PEAK DIR/PEAK HOUR
PIPEDIAM	241	PIPE DIAMETER
PIPEHIGH	241	NON-CIRCULAR PIPE HEIGHT
PIPETYPE	241	TYPE OF PIPE
PIPEWDTH	241	NON-CIRCULAR PIPE WIDTH

Characteristic	Feature	Characteristic Description
PKRSTIME	313	PARKING RESTRICTION TIME
PLACECD	124	CENSUS PLACE (CITY) CODE
PNTARROW	452	NUMBER OF ARROWS
PNTLETTR	452	NUMBER OF LETTERS
PROFUNCL	121	PROPOSED FUNCTIONAL CLASSIF.
RADIUSMK	452	RADIUS MARKING AREA
RAMPFC	119	RAMP FEDERAL CATEGORY
RDACCESS	122	ACCESS CONTROL TYPE
RDCANALS	421	NO. OF ROADSIDE CANALS
RDITEXCA	421	NO. OF RDWY.DITCHES (EXCAVATOR)
RDMEDIAN	215	HIGHWAY MEDIAN TYPE
RDSDMOW	411	ROADSIDE MOWABLE AREA (LARGE)
RDWYID	141	COUNTY,SECT.SUB-SECTION
RDWYID	143	COUNTY,SECT.SUB-SECTION
RETAREAS	243	NO.OF RETENTION AREAS
RETWALL	275	RETAINING WALL LENGTH
RIGDTHIK	119	THICKNESS OF RIGID PAVEMENT
RMLBMP	142	RIGHT MANAGED LANE BEGIN MP
RMLEMP	142	RIGHT MANAGED LANE END MP
RMLRDWY	142	RIGHT MANAGED LANE ROADWAY ID
ROUGHIND	125	PAVEMENT ROUGHNESS INDEX
RPASTNAM	903	RR PASSENGER STATION NAME
RRCLASST	901	RAILROAD CLASS TYPE
RRCONAME	901	RAILROAD COMPANY NAME
RRCROSNO	253	NATIONAL RR GRADE CROSSING NO.
RRLINETP	901	RAILROAD LINE TYPE
RRMANENT	902	RAILROAD MANAGING ENTITY
RROUTEID	901	RAILROAD ROUTE ID
RRPASSER	902	RAILROAD PASSENGER
RRUGFTP	903	URBAN FIXED GUIDEWAY FACILITY
RSISFIDx	900	RAILROAD SIS FACILITY ID 1-9
RSISFTPx	900	RAILROAD SIS FACILITY TYPE 1-9
RSTAREAS	431	NO. OF REST AREAS W/O FACIL.
RSTARFAC	431	NO. OF REST AREAS WITH FACIL.
RTESGNCD	120	ROUTE SIGNING
SCENEDTE	115	SCENIC HWY DESIGNATION DATE
SCENEEXT	115	SCENIC HWY DESIGNATION EXT
SCENEHWY	115	SCENIC HWY DESIGNATION
SCHLBCN	323	SCHOOL ZONE WARNING BEACON
SCHLNAME	323	SCHOOL NAME
SCHLSPED	323	SCHOOL ZONE SPEED
SDESTRET	322	SIDE STREET NAME

Characteristic	Feature	Characteristic Description
SDWLKBCD	216	SIDEWALK BARRIER CODE
SEAWALL	275	SEAWALL LENGTH
SECTADT	331	SECTION AVERAGE ADT
SEDBASIN	243	NO. OF SEDIMENT BASINS
SHARDPH	216	SHARED PATH WDTN AND SEP
SHLDTYP2	214	HIGHWAY SHOULDER TYPE 2
SHLDTYP3	214	HIGHWAY SHOULDER TYPE 3
SHLDTYPE	214	HIGHWAY SHOULDER TYPE
SHLDWTH2	214	HIGHWAY SHOULDER WIDTH 2
SHLDWTH3	214	HIGHWAY SHOULDER WIDTH 3
SIDEWALK	217	SIDEWALK WIDTH
SIDWLKWD	216	SIDEWALK WIDTH AND SEP.
SIGNALID	322	SIGNAL CABINET ID NUMBER
SIGNALNC	322	NON-COUNTED SIGNAL
SIGNALTY	322	TYPE OF TRAFFIC SIGNAL
SIGOPDTE	322	DATE SIGNAL OPERATIONAL
SIGPREV	118	PREVAILING TYPE OF SIGNALIZAT.
SIGSTRCT	322	TYPE OF SIGNAL STRUCTURE
SISFCTPx	147	SIS FACILITY TYPE LEVEL 1-9
SISMPIDx	147	SIS FACILITY MAP ID LEVEL 1-9
SIT1500	118	% LENGTH W/SIGHT DIST $\geq$ 1500'
SKIPLINE	451	NO. STRIPES-SKIP WHITE OR YELLOW
SKIPWHBK	451	NO. OF STRIPES-SKIP WHT W/BLK
SLDWIDTH	214	HIGHWAY SHOULDER WIDTH
SLOPEMOW	411	SLOPES MOWABLE AREA
SLOPEPAV	275	SLOPE PAV AREA CONCRETE
SLOPERIP	275	SLOPE PAV AREA RIP-RAP
SMMACMOW	411	SMALL MACHINE MOWING AREA
SNGLLINE	451	NO. STRIPES-SNGL WHITE OR YELLOW
SPCGRAIL	271	MISC. GUARDRAIL LENGTH
SPECSYS	112	SPECIAL SYSTEMS
STATEXPT	140	SECTION STATUS EXCEPTION (AKA UNDERLYING STATUS)
STDGRAIL	271	STANDARD GUARDRAIL LENGTH
STGHWNWK	112	STRATEGIC HIGHWAY NETWORK CODE
STMSWLEN	245	STORM SEWER RDSDE DITCH LENGTH
STOPBR12	454	NUMBER OF 12 FT. STOP BARS
STOPBR18	454	NUMBER OF 18 FT. STOP BARS
STOPBR24	454	NUMBER OF 24 FT. STOP BARS
STOPBR36	454	NUMBER OF 36 FT. STOP BARS
STOPBR48	454	NUMBER OF 48 FT. STOP BARS
STRDNUM2	111	SECONDARY STATE ROAD NUMBER
STROADNO	111	STATE ROAD NUMBER

Characteristic	Feature	Characteristic Description
SUNTRCOR	801	SUN TRAIL CORRIDOR NAME
SUNTRTYP	801	SUN TRAIL TYPE
SURFACTP	119	SURFACE TYPE
SURFLAYx	232	PAVEMENT SURFACE LAYER 1-7
SURFLxTH	232	PAVEMENT SURFACE THICKNESS 1-7
SURFNUM	230	PAVEMENT SURFACE TYPE
SURWIDTH	212	PAVEMENT SURFACE WIDTH
SVCPLZNM	361	SERVICE PLAZA NAME
SVPBEGMM	361	SERVICE PLAZA BEG MILE MARKER
SVPENDMM	361	SERVICE PLAZA END MILE MARKER
TERRAIN	118	TYPE OF LAND TERRAIN
TOLLCHGS	119	TOLL CHARGES
TOLLNAME	119	NAME OF TOLL FACILITY
TOLLROAD	122	TOLL ROAD FLAG
TOLLTYPE	119	TOLL TYPE
TOLPLZMM	360	TOLL PLAZA MILE MARKER
TOLPLZNM	360	TOLL PLAZA NAME
TRAVLWAY	112	TRAVEL WAY ALONG ROADWAY
TRFBRKCD	330	TRAFFIC BREAK CODE
TRFSTANO	326	TRAFFIC STATION NUMBER
TRKLNLEN	245	TRUNK LINE RDSIDE DITCH LTH
TRNOTPNP	256	PAVED TURNOUTS WITHOUT PIPE
TRNOTPPI	256	PAVED TURNOUTS WITH PIPE
TRNOTUNP	256	UNPAVED TURNOUTS WITHOUT PIPE
TRNOTUPI	256	UNPAVED TURNOUTS WITH PIPE
TRSTATYP	326	TRAFFIC STATION TYPE
TUNNELNO	258	TUNNEL NUMBER
TURNLANL	118	TURN LANE LEFT
TURNLANR	118	TURN LANE RIGHT
TURNMOVE	312	TURNING MOVEMENT RESTRICTION
TYPEBASE	233	TYPE OF ROADWAY BASE MATERIAL
TYPECABL	322	TYPE OF CABLE CONNECTION
TYPEOP	118	TYPE OF PARKING (HPMS)
TYPEPARK	313	TYPE OF ROADWAY PARKING
TYPEROAD	120	TYPE OF ROAD
UNDPASNO	258	UNDERPASS NUMBER
URBAREA	124	URBAN AREA NUMBER
URBSIZE	124	URBAN SIZE
USROUTE	113	U.S. ROUTE NUMBER
USROUTE2	113	SECONDARY U S ROUTE NUMBER
VEHDIRCD	460	GENERAL VEHICULAR DIRECTION
VRTALADQ	118	VERTICAL ALIGNMENT ADEQUACY



Characteristic	Feature	Characteristic Description
WARNBCN	322	WARNING BEACON
WAYSDPKS	431	NUMBER OF WAYSIDE PARKS
WDTRNPNP	256	AV. WIDTH TRNOUT, PAVED, NO PIPE
WDTRNPPI	256	AV. WIDTH TRNOUT, PAVED, PIPE
WDTRNUNP	256	AV. WIDTH TRNOUT, UNPAVE, NO PIPE
WDTRNUPI	256	AV. WIDTH TRNOUT, UNPAVED, PIPE
WEIGHSTA	431	NO. OF WEIGHT STATIONS
WELCMSTA	431	WELCOME STATIONS
WIDOBSTA	118	DENSE DEVELOPMENT
WIDOBSTB	118	MAJOR TRANSPORTATION FACILITY
WIDOBSTC	118	OTHER PUBLIC FACILITIES
WIDOBSTD	118	TERRAIN RESTRICTIONS
WIDOBSTE	118	HISTORIC & ARCHAEOLOGICAL SITES
WIDOBSTF	118	ENVIRONMENTALLY SENSITIVE AREA
WIDOBSTG	118	PARK LAND
WIDOBSTX	118	ROAD CAN BE WIDENED-NO OBSTACL
WIDPOTNL	118	WIDENING POTENTIAL LANES
WOVENFCS	272	NO. OF WOVEN WIRE FENCES
YRCONST	119	YEAR OF LAST CONSTRUCTION
YRIMPT	119	YEAR OF LAST IMPROVEMENT



# K. U.S. POSTAL STANDARD STREET SUFFIXES

Name	Abbreviation
ALLEY	ALY
ANEX	ANX
ARCADE	ARC
AVENUE	AVE
BAYOU	BYU
BEACH	BCH
BEND	BND
BLUFF	BLF
BLUFFS	BLFS
BOTTOM	BTM
BOULEVARD	BLVD
BRANCH	BR
BRIDGE	BRG
BROOK	BRK
BROOKS	BRKS
BURG	BG
BURGS	BGS
BYPASS	BYP
CAMP	CP
CANYON	CYN
CAPE	CPE
CAUSEWAY	CSWY
CENTER	CTR
CENTERS	CTRS
CIRCLE	CIR
CIRCLES	CIRS
CLIFF	CLF
CLIFFS	CLFS
CLUB	CLB
COMMON	CMN
COMMONS	CMNS
CORNER	COR
CORNERS	CORS
COURSE	CRSE
COURT	CT
COURTS	CTS
COVE	CV
COVES	CVS

Name	Abbreviation
CROSSROAD	XRD
CROSSROADS	XRDS
CURVE	CURV
DALE	DL
DAM	DM
DIVIDE	DV
DRIVE	DR
DRIVES	DRS
ESTATE	EST
ESTATES	ESTS
EXPRESSWAY	EXPY
EXTENSION	EXT
EXTENSIONS	EXTS
FALL	FALL
FALLS	FLS
FERRY	FRY
FIELD	FLD
FIELDS	FLDS
FLAT	FLT
FLATS	FLTS
FORD	FRD
FORDS	FRDS
FOREST	FRST
FORGE	FRG
FORGES	FRGS
FORK	FRK
FORKS	FRKS
FORT	FT
FREEWAY	FWY
GARDEN	GDN
GARDENS	GDNS
GATEWAY	GTWY
GLEN	GLN
GLENS	GLNS
GREEN	GRN
GREENS	GRNS
GROVE	GRV
HEIGHTS	HTS

Name	Abbreviation
HIGHWAY	HWY
HILL	HL
HILLS	HLS
HOLLOW	HOLW
INLET	INLT
ISLAND	IS
ISLANDS	ISS
ISLE	ISLE
JUNCTION	JCT
JUNCTIONS	JCTS
KEY	KY
KEYS	KYS
KNOLL	KNL
KNOLLS	KNLS
LAKE	LK
LAKES	LKS
LAND	LAND
LANDING	LNDG
LANE	LN
LIGHT	LGT
LIGHTS	LGTS
LOAF	LF
LOCK	LCK
LOCKS	LCKS
LODGE	LDG
LOOP	LOOP
MALL	MALL
MANOR	MNR
MANORS	MNRS
MEADOWS	MDW
MEWS	MDWS
MILLS	ML
MISSION	MLS
MOTORWAY	MTWY
MOUNT	MT
ORCHARD	ORCH
OVAL	OVL
OVERPASS	OPAS
PARK	PARK
PARKS	PARK
PARKWAY	PKWY
PARKWAYS	PKWY

Name	Abbreviation
PASS	PASS
PASSAGE	PSGE
PATH	PATH
PIKE	PIKE
PINE	PNE
PINES	PNES
PLACE	PL
PLAIN	PLN
PLAINS	PLNS
PLAZA	PLZ
POINT	PT
POINTS	PTS
PORT	PRT
PORTS	PRTS
PRAIRIE	PR
RADIAL	RADL
RAMP	RAMP
RANCH	RNCH
RAPID	RPD
RAPIDS	RPDS
REST	RST
RIDGE	RDG
RIDGES	RDGS
RIVER	RIV
ROAD	RD
ROADS	RDS
ROUTE	RTE
ROW	ROW
RUE	RUE
RUN	RUN
SKYWAY	SKWY
SPRING	SPG
SPRINGS	SPGS
SPUR	SPUR
SPURS	SPUR
SQUARE	SQ
SQUARES	SQS
STATION	STA
STRAVENUE	STRA
STREAM	STRM
STREET	ST
STREETS	STS

Name	Abbreviation
SUMMIT	SMT
TERRACE	TER
THROUGHWAY	TRWY
TRACE	TRCE
TRACK	TRAK
TRAFFICWAY	TRFY
TRAIL	TRL
TRAILER	TRLR
TUNNEL	TUNL
TURNPIKE	TPKE
UNDERPASS	UPAS
UNION	UN
UNIONS	UNS

Name	Abbreviation
VALLEY	VLV
VALLEYS	VLYS
VIADUCT	VIA
VIEW	VW
VIEWS	VWS
VILLAGE	VLG
VILLAGES	VLGS
VILLE	VL
VISTA	VIS
WALK	WALK
WALKS	WALK
WAY	WAY



## L. GLOSSARY

**AASHTO**—American Association of State Highway and Transportation Officials (AASHTO). Representing State transportation officials, AASHTO is one of five standards development organizations with which U.S. DOT is working to establish standards for integrated, interoperable ITS (intelligent transportation system) deployment.

### **Access**

1. To read, enter, or retrieve data.
2. The ability to drive onto or across a roadway.

**Access Road**—Same as frontage road.

**Active Exclusive**—Ramp, frontage road, connector, or other facility. Active exclusive mileage is not counted as official mileage on the SHS.

**Active Off the SHS**—The roadway ID or a segment of a roadway ID that is not part of the SHS, which is maintained by others (counties or cities), yet for which FDOT collects certain data for reporting purposes.

**Active On the SHS**—All roads owned and maintained by FDOT as part of the SHS.

**Administrative Features**—Administrative aspects or traits of each roadway in the State belonging to one of the following classes: roadway systems, functional classification, political and/or departmental boundaries, and stationing identification.

**Anchor**—A characteristic milepoint used as a semi-permanent point on a roadway. If the characteristic is eligible as an anchor, this milepoint (location) may be used to tie other feature locations to it. If the anchor's milepoint shifts, the associated (or tied) feature moves with it, keeping the same distance between them.

**Annual Average Daily Traffic Volume (AADT)**—The total volume of traffic on a highway segment for one year, divided by the number of days in the year. This volume is usually calculated by adjusting a short-term traffic count with seasonal (weekly) factors obtained from continuous monitoring sites. AADT is measured at continuous monitoring sites.

**Begin Milepoint (BMP)**—Denotes the BMP for a roadway segment.

**Bike Lane**—A striped, separated portion of the roadway that is designated (by pavement markings and/or signs) for the preferential use of bicycles.

**Break**—A point on a roadway where significant changes in traffic volumes and vehicle classifications occur. It is described by a milepoint. A break is always located at the beginning and ending of each roadway ID, and at milepoints within the roadway ID where significant changes in traffic volumes and vehicle classifications occur.

**Centerline**—A virtual line parallel to a roadway, usually at or near the center of the travel lanes.

### **Characteristic**

1. A property of a feature.
2. An object in a feature collection.

**Characteristic Name**—The characteristic's computer variable name is an abbreviation of the characteristic description.

**City Streets**—Roads and streets that are owned by the cities and municipalities.

**Collector/Distributor System**—Same as a ramp.

**County**—One of the 67 administrative subdivisions of the State of Florida. The county number is part of the numeric identifier for a roadway ID (digits 1 and 2).

**County Section Number Key Sheet**—The key sheet serves as a referenced index for roadway IDs on the SHS, located within a particular county.

**Data Sponsorship**—This concept allows a clear definition of RCI data expectations and management responsibilities. Their offices sponsor RCI data that are unique to its area of responsibility. TDA has the overall responsibility for coordinating general interest roadway data collection, storage, associated reporting activities, and providing procedures and definitions of data expectations and management responsibilities.

**Deleted**—This term designates the roadway segment or portion of the roadway that has been physically removed. Any data currently in RCI must remain in the database for a minimum of five years after a status change. Prior to deletion of RCI data, the Safety Office must be notified.

**Distance**—A length between two points. In RCI, distances are usually measured along the centerline of a curving roadway, and not on a straight line cutting across the curve.

**Distance Measuring Instrument (DMI)**—A device used to measure the length of roadways and to locate (milepoint) where characteristics exist along the roadway.

**District**—Organizational subdivision of the State for FDOT use. RCI uses two forms of District: Managing and Geographic.

**Divided Roadway**—Any road that has a median.

**DXF (Drawing Exchange Format) Files**—DXF files allow for the translation between different types of software and other programs that require a file type change. Many CAD and 3D graphic software can import DXF files.

**End Milepoint (EMP)**—Denotes the EMP for a roadway segment.

**Exception**—Occurs when two or more roadway IDs overlap the same road. To avoid duplication in data reporting, the information is only reported under one roadway ID.

**Feature**—A feature is a group of characteristics that pertain to a similar subject. Features determine characteristic attributes like administrative type, owning office, feature type, roadway side, whether it is tied, and whether it is interlocked.

**Feature Administrative Types**—The six feature types are: 1) Administrative, 2) Maintenance, 3) Operational, 4) Physical, 5) Trail, and 6) Rail Line.

**Federal-Aid Eligible Roads**—Roads that are always eligible for Federal Highway Funds. They are either on the NHS or part of the Surface Transportation Program. Eligibility is determined by functional classification; public roads classified as principal arterials, minor arterials, urban collectors, or rural major collectors are Federal-aid eligible. Roads classified as rural minor collectors, rural local, or urban local are not Federal-aid eligible. However, a limited amount of Federal Highway Funds can be spent each year on rural minor arterials.

**Federal Highway Administration (FHWA)**—The FHWA, one of the administrations of the U.S. Department of Transportation, deals with highway transportation in its broadest scope, administering all Federal highway transportation programs.



**Federal Roads**—Roads that are owned by agencies of the U.S. Government. Interstate highways are not included as they are owned by the states, not by the Federal Government.

**Financial Management (FM)**—The Financial Management system provides the ability to plan, implement, and track the progress of the Department’s work program in the WPA (Work Program Administration) subsystem; the ability to monitor the Department’s financial commitments in the PCM (Project Cost Management) subsystem; and the ability to manage and seek reimbursement for projects that are eligible for FHWA participation in the FPM (Federal Programs Management) subsystem.

**Frontage Road**—A road that allows for some control of access between a mainline and nearby commercial areas or residences. The majority of the traffic on frontage roads comes from a nearby mainline or goes to it. A road that allows for access control between a mainline and nearby areas, but has significant traffic going to or from other roads in addition to the mainline, is itself another mainline and not a frontage road. They also include roads classified as access roads, collector/distributors, and service roads.

**Functional Classification**—The organization of roadways into a hierarchy based on the character of service provided. Typical classifications include arterial, local, and collector roadways.

**Gap**—A term used to designate a discontinuity in a route. The discontinuity may be caused by a geographical object or by an administrative decision not to define a roadway segment as part of the route. For example, a gap could be a roadway segment that extends into another state but then returns. The only information recorded in RCI about the gap is that it exists and at what sequence it is located.

**General Compass Direction**—The overall direction of a roadway ID, using the eight points of a compass. This direction is determined by the overall direction in which the roadway ID milepoints ascend. The general compass direction of a particular portion of a route is not necessarily the same as the overall roadway direction. For example, I-4 is considered a west to east route although the compass direction for a number of its roadway IDs is coded as south to north.

**General Interest Roadway Data (GIRD)**—Descriptive roadway data of general interest around the Department including that needed by Planning Offices to produce legislatively and federally mandated reports, maintain the computer database, and to support the SIS, preparation of SLDs, and the Department’s GIS basemap. GIRD Procedure Topic No. 525-020-310 outlines TDA and District responsibilities.

**Generate**—To produce business deliverables which can be printed, with output as a form, a report, or descriptive text.

**Geographic District**—One of the Districts into which the 67 counties are divided. Used for reporting purposes, but does not imply management responsibility for the roads located there.

**Geographic Information System (GIS)**—A computer-based system that links the geographic location of map features to text information or databases.

**GIS Basemap**—The Department’s official digital GIS route system that represents the roadways maintained in RCI, including Florida’s SHS and major public roads off the SHS.

**GIS Route**—A valid roadway ID with an “8” in the 6th digit place. These roadways are placed in both RCI and the GIS basemap upon the request of the GIS Support Section and are not intended for use by other Central Office or District personnel.

**Global Positioning System (GPS)**—A method of determining earth positions (usually latitude/longitude) using communications with satellites. The GPS is a government-owned system of 24 earth-orbiting satellites.

**Gross Length**—The difference between the EMP and the BMP of the roadway ID, without regard to the status. Also known as section length.

**Highway Performance Monitoring System (HPMS)**—A report to the FHWA using general interest roadway data to describe the roadway conditions in the U.S.

**HPMS Sample**—A randomly selected roadway segment, on or off the SHS, for which detailed data are collected for the HPMS report. HPMS sample section data are stored primarily in Feature 118 of RCI.

**HPMS Universe**—Roads that are functionally classified as rural minor collector or above or are part of the NHS.

**Inactive**—A characteristic value that indicates a road and its associated data for which the roadway ID will no longer be considered as an operational number. (Operational number is a roadway ID currently being used to store RCI data.) RCI data currently coded under this number must be retained for an indefinite period. This road may or may not be of any interest at a later date.

**Interlocking Features**—Characteristics in a feature interlock when the BMP and EMP of each characteristic are identical. This allows the user to change the milepoint for one in a group of entries and the computer will automatically change the milepoints for the others.

**Intermodal**—A mode is a particular form of transportation, such as automobile, transit, carpool, ship, or bicycle. Intermodal refers to connections between modes.

**Inventory**—The process involving accurate verification of field and office data attributes, including updating and editing data in the RCI database. Various methods may be employed to maintain an up-to-date inventory that accurately reflects field conditions.

**Inventory Date**—The date a field inventory was conducted.

**Inventory Direction**—The direction in which the roadway ID milepoints ascend. This is almost always the direction in which the inventory is actually collected. In most cases, the inventory direction is from south to north or from west to east.

**Jurisdiction**—Control over a road's operation and maintenance, usually conferred by ownership. For RCI purposes, jurisdiction may be State, county, or city.

**Leg**—Same as mainline.

**Length Features**—Length features begin at a particular point and end at a particular point.

**Level of Service (LOS)**—A qualitative assessment of a roadway's operating conditions or the average driver's perception of the quality of traffic flow that is represented by the letters A-F: A representing the freest flow and F representing the least free flow.

**Linear Referencing System (LRS)**—As defined by FHWA, the total set of procedures used for determining and retaining a record of specific points along a highway. RCI uses milepoints. FDOT includes RCI, the GIS basemap, and the SLD as parts of the LRS for transportation related purposes.

**Mainline**—Through lanes and other lanes that carry traffic. It can be on or off the SHS and is included in the Department's standard mileage reports. They also include paired one-way roads and roads previously called legs.

#### **Maintain (a road)**

1. To have jurisdiction over a road (see Jurisdiction).
2. To keep a road in good condition.

**Maintenance Features**—Physical traits in the roadway or along the side of the roadway. They are collected to calculate the cost of maintaining the roadway.

**Managing District**—One of eight Departmental entities that manage State roads. Districts 1-7 manage non-Turnpike roads in their respective geographic areas. The Turnpike manages roads in the other District's geographic areas.

**Median**—A barrier or other physical separation between two lanes of traffic traveling in opposite directions.

**Metric Unit of Measurement**—The following is a list of the metric measurement units that may be used: HA hectare, M1 meter, KM kilometer, and M2 square meters.

**Milemarker**—A physical sign located along a roadway, indicating the number of miles (usually rounded off to the nearest mile) from a defined point. For example, the small green milemarkers along each interstate highway in Florida show the number of miles from the west or south end of the portion of that highway in Florida.

**Milepoint**—Any point on a roadway section that is identified by its distance in miles from the beginning of the roadway section. Milepoints increase in the direction of inventory and are used to designate or record the position or location of features along a roadway section. The milepoints in RCI are recorded as a number with three significant decimal places (1.234).

**Milepost**—An obsolete term formerly used interchangeably with milemarker and sometimes with milepoint.

**Mode Type**—RCI contains data for roadways and railroad lines. The mode type is found on the V/U/D screen.

**National Highway System (NHS)**—A federally designated network of roads, most of which already exist, that are eligible for priority Federal Aid Funding under ISTEA; includes the Interstate system and major State highways.

**Net Length**—The sum of all the segments on a roadway ID that are drivable and that do not have their data carried under a different roadway ID. This excludes portions that are shown in Feature 140 to be inactive, deleted, or pending, or that have an exception coded in Feature 141.

**NHS Connectors**—Local roads designated by the FDOT to connect NHS facilities to specific intermodal generators.

**Offset Direction**—Offsets allow for the coding of features within a roadway side. All offset directions require an offset distance. Offsets only apply to characteristics.

**Offset Distance**—The lateral distance of an object from the outside edge of pavement or from roadway median. This applies to characteristics only.

**Off-system**—See Active Off the SHS.

**Open Road Tolling (ORT)**—A high-tech plaza with no gates, no tollbooths, and no need to slow down.

**Operational Features**—Features that include restrictions, guidelines, and informational messages imposed to more effectively manage, control, and move traffic along the roadways in the State.

**Operational Number**—A roadway ID number currently being used to store RCI data at the time of a status change.

**On-system**—See Active On the SHS.

**Painted Gore**—Where the travel lane(s) of a ramp meet the travel lane(s) of a mainline.

**Paired One-Way**—Same as mainline.

**Pending**—New construction anticipated to be added to the SHS.

**Physical Features**—Physical traits of the roadway primarily grouped into the following classes: geometrics, roadway alignment, composition, structures (<20 ft), and crossings.

**Physical Gore**—The actual point, usually a triangular piece of land, where the pavement of a ramp leaves or meets the pavement of a mainline.

**Point Features**—Point features occur at a particular point in or along the roadway.

**Portable Traffic Monitoring Site (PTMS)**—A traffic monitoring site that has loops and/or axle sensors in the roadway with leads running back into a cabinet located on the shoulder. When a traffic count is desired, a portable counter is connected to the sensor leads and placed in the cabinet. After the count has been collected, the counter is removed and placed at another count site. The site is not portable, just the counter.

**Public Road**—A road open to the traveling public and operated by a governmental organization.

**Quality Control Plan**—A District plan for a comprehensive, well defined, written set of procedures and activities designed to produce services and products at an established quality level. It identifies an organization and provides a specific approach to quality control as well as providing for accountability.

**RACF Authority**—An FDOT-issued RACF (resource access control facility) user ID account and password for accessing RCI and the mainframe.

**Ramp**—A segment of road with the primary purpose of allowing traffic to enter or exit 1) a road with full or partial control of access, or 2) another ramp. A ramp usually has one-way traffic.

**RCI Menu**—A menu, on the Department's mainframe computer, that provides access to edit RCI application programs and reports available for use by the Districts.

**Roadway Characteristics Inventory (RCI)**—The Department's inventory of roadway data.

**Roadway Characteristics Inventory (RCI) Database**—This is the Department's primary database used to store the inventory of roadway data.

**Roadway ID**—A unique eight-digit identification number assigned to a roadway or section of a roadway either on or off of the SHS for which information is maintained in the Department's RCI database. The first two digits represent the county code, the next three digits represent the section number, and the last three digits represent the sub-section number.

**Roadway Inventory Tracking Application (RITA)**—This application allows District Offices to manage, document, and plan their inventory cycles.

**Roadway Segment**—A part of a roadway ID, defined for assembling into routes or for other purposes.

**Roadway Side**—Roadway side indicates which side of the roadway the characteristic appears. If the roadway is divided, the characteristics that are not composite must be entered for both the left side and the right side of the road: C for composite, R for right, and L for left. All characteristics found to exist on the physical centerline and to the right of the physical centerline, as determined by direction of stationing, shall be recorded as right. All characteristics to the left of the physical centerline will be recorded as left.

**Roadway Status**—See Section (Roadway ID) Status

**Roundabout**—A type of circular median intersection that serves as an alternative to traffic signals and stop signs.

## **Route**

1. A path between two points, namable and repeatable.
2. A linkage of roadway segments which can be non-contiguous.

**Route Name**—A term used to describe a route.

**Route Sequencing**—Determining the order of route segments to properly constitute a route.

**Route vs. Section Direction**—An indicator that records whether the milepoints for a given roadway segment are ascending (plus) in the same direction as the route or descending (minus) in the opposite direction of the route.

## **Section**

1. A length of roadway described by a unique roadway ID. See Roadway Section.
2. Part of the roadway ID (digits 3, 4, and 5).

**Section Length**—See Gross Section Length

**Section Number**—Part of the roadway ID (digits 3, 4, and 5).

**Section Status**—Indication of whether a road is on or off the SHS and whether it is currently used in mileage reports. There is an overall roadway ID status, and exceptions to this roadway ID status are shown in Feature 140.

**Secured**—Updates are restricted to TDA.

**Service Road**—Same as frontage road.

**State Highway System (SHS)**—Roads owned and maintained by the State of Florida. Includes roads signed as interstate highways, U.S. routes, and state roads.

**Straight-line Diagram (SLD)**—Linear graphical representation of select physical and descriptive roadway characteristics along the travel way of a road.

**Strategic Intermodal System (SIS)**—The transportation system comprised of facilities and services of statewide and interregional significance, including appropriate components of all modes.

**Sub-Section**—Part of the roadway ID (digits 6, 7, and 8).

**Telemetered Traffic Monitoring Site (TTMS)**—Traffic counters that are permanently placed at specific locations throughout the state to record the distribution and variation of traffic flow by hour of the day, day of the week, and month of the year from year to year and transmit the data to TDA. These sites record traffic volumes 24 hours a day, seven days a week, 52 weeks a year.

**Time Sharing Option (TSO)**—Time sharing functions as a way for multiple users to access a mainframe system concurrently. There is no interaction between users because to each user it appears that they are the only user on the system. TDA uses TSO for querying the RCI database, running reports, and running edits.

**Total Surface Width**—Identifies the total width of through lanes, medians (including inside shoulders), and outside shoulders.

**Traffic Break**—A continuous section of highway that is reasonably homogenous with respect to traffic volume, vehicle classification, and general physical characteristics (e.g., number of through lanes), with beginning and ending points at major intersections. Traffic breaks are determined by the District personnel.

**TDA**—Transportation Data & Analytics Office under the State Transportation Planning Office of the Florida Department of Transportation.

**United States Department of Transportation (U.S. DOT)**—Establishes the Nation’s overall transportation policy. Under its umbrella, there are ten administrations whose jurisdictions include highway planning, development and construction; urban mass transit; railroads; aviation; and the safety of waterways, ports, highways, and oil and gas pipelines.

**Value**—Values are assigned to each characteristic to correspond with the particular unit of measure. Where decimals are permitted, each decimal place does not count as a character space (99.9 contains three characters,.9 contains one).

**Video Log**—A visual record of the SHS comprised of digital images taken every 26.4 feet.

**View/Update/Delete Roadway ID Screen**—A critical RCI screen that provides a comprehensive summary of administrative data for the selected roadway, such as the RCI section established date, status, overall description, BMPS and EMPS, net length, general compass direction.

## M. FDOT TDA APPLICATIONS

The following applications are maintained by the FDOT TDA Office:

- City to City Mileage
  - FDOT provides the official highway mileage between cities in Florida. An online map, an Excel spreadsheet, and an Excel spreadsheet with filtering are available. The spreadsheet includes the city-to-city mileage matrix and an information page. The spreadsheet with filtering provides an additional tab where the user can enter a list of cities to filter the matrix on.
  - <https://www.fdot.gov/statistics/hwydata/intercity.shtm>
- Data Analysis and Reporting of Transportation (DART)
  - The DART is a web application that contains data validations and reports for data that comes from RCI. DART pulls information from the RCI and pushes that information in more efficient methods, dramatically reducing the effort and time to execute edits and receive the results as Adobe or Excel (among other options) directly.
  - [http://dot-wpap007.fdot.dot.state.fl.us/DART\\_WebApp/HUB.aspx](http://dot-wpap007.fdot.dot.state.fl.us/DART_WebApp/HUB.aspx) (accessible behind the FDOT firewall)
- District Quality Evaluations
  - In order to address the need for more useful methods to monitor District quality and to better identify program requirements, the TDA Office developed a more objective evaluation process, based on specific goals, objectives, and requirements, called the District Quality Evaluation (DQE).
  - <https://fdotewp2.dot.state.fl.us/DistrictQualityEvaluation/> (accessible behind the FDOT firewall)
- Florida Traffic Online
  - The Florida Traffic Online site is a map-based web application designed to provide online access to traffic data. The traffic data accessible through this site is released annually. Other transportation data, such as the road networks displayed on this site are updated weekly.
  - <https://tdaappsprod.dot.state.fl.us/fto/>
- Form TM
  - Local governments are required by Chapter 218.322, Florida Statutes, to provide mileage data as part of their annual financial reporting. Form TM is used to provide this data which is needed by the FDOT to meet Federal reporting requirements.
  - <https://www.fdot.gov/statistics/mileage-rpts/default.shtm>
- IView
  - IView is a map-based web application designed to provide linear referencing functionality to support agency data collection and verification. It contains the 3 official agency Linear Referencing Systems (LRS) (LRS routes, rail, and SUNTrail).
  - <https://tdaappsprod.dot.state.fl.us/prv/iview/> (accessible behind the FDOT firewall)

- Open Data Hub
  - Open Data Hub is FDOT’s public platform for exploring and downloading open geospatial data, discovering and building apps. In this hub users can analyze and combine open datasets using maps, as well as develop new web and mobile applications.
  - <https://gis-fdot.opendata.ArcGIS.com/>
- Roadway Inventory Tracking Application (RITA)
  - RITA helps District Offices manage, document, and plan inventory cycles for Roadway Characteristics Inventory (RCI) roadways, Highway Performance Monitoring System (HPMS) samples, and construction projects on state roadways. This application also provides reports detailing how much of the annual inventory has been completed and the status of the remaining inventory to be completed. RITA facilitates the Districts to convey their inventory status more efficiently.
  - <http://cotranstat.dot.state.fl.us/pls/rita/welcome> (accessible behind the FDOT firewall)
- Real Time Traffic Information
  - The Real-Time Traffic Information is a web-based mapping application that provides real-time traffic count information.
  - This data is only activated during emergencies such as hurricane, wildfire, etc.
  - <https://fdotwp1.dot.state.fl.us/TrafficInformation/>
- Straight-line Diagrams (SLDs) and SLO GIS
  - SLDs are linear graphical representations of features and characteristics along roadways on and some off of the State Highway System (SHS). The Straight-line Diagrammer (SLD Diagrammer) is a web-based application featuring a wizard interface to help generate SLDs from Roadway Characteristics Inventory (RCI) data according to user-specified settings. Straight-Line Diagrams Online GIS (SLO GIS) web application offers the public a means of searching for SLDs by district, county, roadway description or by selecting a roadway using the map interface.
  - <https://fdotewp1.dot.state.fl.us/slogis/>
- Video Log Viewer
  - The Video Log Viewer is a web-based application maintained by FDOT TDA Office. Video log images available for viewing through the Florida Department of Transportation site are gathered by a consultant under contract to the TDA Office. Collected images provide a visual record of the State Highway System at the time they were captured.
  - FDOT stopped collecting new video log images after 2017.
  - <https://fdotwp1.dot.state.fl.us/videolog/>
- FDOT TDA GIS Data
  - TDA's Spatial Data & Analytics section maintains the official FDOT linear referencing system of all roads in the Roadway Characteristics Inventory (RCI) database. It is also responsible for the production and maintenance of the Federal-Aid Highway maps; numerous GIS data layers; and custom GIS tools and applications.



- <https://www.fdot.gov/statistics/gis/default.shtm>
- AGOL
  - GIS @ FDOT is the portal for FDOT's organizational account for ArcGIS Online, which is a collaborative, cloud-based platform that allows members of an organization to use, create, and share maps, apps, and data with anyone. It provides a mechanism for data organization and management across districts and functional areas within the Department, eliminating the need for data duplication. This platform is also portable, and all maps created will be compatible across desktops, tablets, and smart phones.
  - <https://fdot.maps.ArcGIS.com/>